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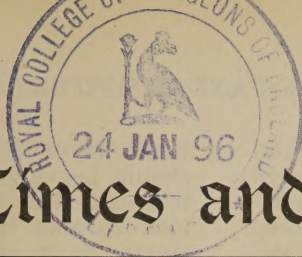
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Original

THE RELATION BETWEEN THE DISEASE OF INEBRIETY AND THE MORPHINE HABIT, AND TESTAMENTARY CAPACITY.*

BY EDWARD C. MANN, M. D., F. S. S.

Physician to Sunny Side Private Hospital for Nervous and Mental Diseases, New York; member Medical Society of the County of New York, Member Brooklyn Pathological Society; member New York Medico-Legal Society; associate member Societe Medico-Physiologique, Paris, France; Hon. member Scientific Section, Imperial University, Kharkoff, Russia; fellow and gold medalist Society of Science, Letters and Art, London, etc., etc.

The general principles in relation to the capacity of a person to make a will are that he must be of sound and discerning mind and memory, so as to be capable of making a testamentary disposition of his property with sense and judgment, in reference to the situation and amount of such property, and to the relative claims of different persons who are, or might be, the objects of his bounty. Just what degree of mental weakness or impairment shall be held to destroy testamentary capacity has given rise to much discussion and varying opinions. It has been erroneously asserted that the most pronounced imbecility and weakness of mind will not invalidate a will, unless the testator be an absolute idiot, but in 1862, in the famous Parish will case, this view was challenged and overthrown.

Frequently the sick, who might have sufficient capacity to properly dispose of their estates if left to themselves, have not strength to resist the threats and improper pressure brought to bear upon them, or discernment to detect the fraud practiced upon them, and the test in such cases must be whether the mind and will of the testator was the operating agent, or whether it was so overborne and deluded that the act in question was the product of the mind and will of another. The testator must possess the requisite strength of mind to act independently and to exercise his own judgment and will. Anything is undue influence which amounts to constraint, and which substitutes the will of another for that of the testator. The testator must enjoy full liberty and freedom in the making of his will, and possess the power to withstand all contradiction and control. Any degree of importunity or undue in-

Read before the Medico-Legal Congress held in New York, September, 1895.

fluence which deprives a testator of his free agency in influence which he is too weak to resist, and that will render the instrument not his free, unrestrained act, is sufficient to invalidate a will. In the disease of inebriety, and in the morphine habit at times, there is weakness and infirmity, and the unscrupulous and crafty are quick to take advantage of it and with alacrity impose upon that condition in which a sick or feeble person will assent to almost any suggestion for the sake of peace and quiet. It is often difficult to determine, unless a patient has been under careful medical treatment, to what extent the mind in these cases is impaired, and the will enfeebled. With regard to undue influence in these cases, also, it is not often the subject of direct proof. It can be shown, however, by all the facts and circumstances surrounding the testator—the nature of the will, his family relations, the condition of his health and mind, his dependency upon, and subjection to, the control of the person supposed to have wielded the influence, the opportunity and disposition of the person to wield it, and other acts and declarations of such person. It is not sufficient to a will that it is obtained by the legitimate influence which affection or gratitude gives a relative over the testator. A competent testator may bestow his property upon the objects of his affection, and he may from gratitude reward those who have rendered him services; but if one takes advantage of gratitude or affection to obtain an unjust will in his favor, using his position to subdue and control the mind of the testator so as substantially to deprive him of the use of his free agency, then the fact that affection and gratitude was the moving cause makes it no less a case of undue influence. In the disease of inebriety and in the morphine habit we have, certainly, at times, an enfeebled mind and body, where it is very easy for the dominant will of some relative or friend to destroy the free agency of a decedent and operate for their own personal aggrandizement. If any given will is manifestly an unjust one, and disregards the ordinary ob-

ligations of duty and affection, it should be viewed with suspicion. A will or testament may by its provisions furnish intrinsic evidence involving it in suspicion and tending to show the incapacity of the testator to make a disposition of his estate with judgment and understanding, in reference to the amount and situation of his property, and the relative claims of the different persons who should have been the objects of his bounty; such as the disposition of his estate to the exclusion of near and dear relatives having the strongest natural claims upon his affections, a wife and children, for instance, or other near and dear relations, without apparent cause, which alone would be a suspicious circumstance, although not proving, per se, sufficient ground for setting aside the will.

We must consider together the three factors of the mental condition of the testator, the presence or absence of undue influence and the character and terms of the will itself in arriving at a proper conclusion as to the upholding of the instrument or will.

In determining the mental condition of the testator the opinions and testimony of those not experts, but who have had opportunities of observing the decedent, ought to be received. A non-expert may frequently be able to tell very intelligently whether the testator seemed to him sane or insane, rational or irrational. An intelligent person who has been daily in the society of a testator is frequently an excellent judge of his sanity or insanity, and for my own part, I always welcome such opinions, founded on personal observation, as an aid to me in arriving at my conclusions. We must understand that the dipsomaniac in the intervals between his paroxysms has a lucid interval, and at such times may make a will. There comes a time, however, in the history of nearly all inebriates and of opium habitués, when the disease has been so extended as to actually impair the functions of the mind, practically without cessation, and this should invalidate a will. Such a case must be regarded in the same light as a case of mental

derangement produced by any other cause. Again, take the case of the morphine habituate, when deprived of the customary stimulus. The functions of the mind are in such a case most markedly impaired if the person is taking opium or morphine in any quantity, and a will made at such a time is open to grave suspicion of its propriety. Of course, when fixed mental disease has supervened upon either inebriety or the opium habit, the man or woman is incompetent and irresponsible for his or her acts. If the person is so excited by either present intoxication or from the effects of morphine as not to be master of himself, his legal acts are void. An insane delusion affecting the provisions of a will must, of course, invalidate it. Physicians are frequently requested to act as subscribing witnesses to wills, but should never allow themselves to do so, unless thoroughly satisfied of the mental soundness of the testator, and that the testator understands the provisions of the will, and that it is his own act, and not that of another

mind. No person is justified in putting his name as subscribing witness to a will unless he knows from the testator himself that he understands what he is doing. The witness should also be satisfied from his own knowledge of the state of the testator's mental capacity that he is of sound and disposing mind and memory. By placing his name to the instrument the witness, in effect, certifies to his knowledge of the mental capacity of the testator, and that the will was executed by him freely and understandingly, with a full knowledge of its contents. This is the legal effect of the signature of the witness when he is dead or out of the jurisdiction of the Court. Finally, no lawyer is justified in preparing or assisting in or consenting to, the execution of a will unless he knows personally that the testator fully understands what he is about, and unless he has thoroughly satisfied himself of the testator's mental capacity and freedom of action, and he should never accept suggestions or directions from a third party.

259 West 136th street, New York.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION,
WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS
BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS
CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND
PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERI-
MENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

THE PLASMA AND CORPUSCLES
OF THE BLOOD.

PART XVI.

The corpuscular elements of the blood float in a fluid, called plasma. This is alkaline in reaction, of a light amber color and consists chiefly of water. It carries in solution the various nitrogenized and inorganic sub-

stances. It is the vehicle of the corpuscular elements and evidently penetrates the finer histological elements, that the corpuscles cannot enter. Its density evidently varies, under changing physiological conditions. It is highly vitalized and possesses, in a high degree, the power of neutralizing or destroying elements foreign to the body.

It possess many features not unlike milk deprived of its fat. What its special, definite functions are in the finer processes of nutrition are not definitely known, though they no doubt are vastly more complex than those of the corpuscles.

As it decomposes almost at once, after it is discharged from a blood-vessel, an accurate study of it is quite impossible. Various physical conditions and chemical reagents will retard the coagulation of fibrin in it; but even this does not imply that its vitality has not been greatly impaired or destroyed by them. In its natural state, plasma is a fluid, containing a ferment which, when liberated, leads to a coagulation of the blood, and exercises a potent influence in the repair of wounds. This is most manifest in clean-cut surfaces, when the surface transudes an amber-colored, gluey material, which favors cohesion.

Of late years, the view has been, that in primary union permanent cohesion is effected by cellular proliferation, rather than through the organization of what has been mis-called "lymph." This, after being effused, becomes reticulated and moderately vascular, although never to the extent of normal tissues, because of the tendency of all transient capillaries to become resorbed and disappear.

The plasma calls for a liberal supply of water in order to maintain its proper fluidity, which after flushing the tissues, takes effete materials and throws them off, in vapor from the lungs, in urine from the kidneys, in perspiration from the skin, and through the intestine. In cholera it is supposed that the unquenchable thirst of that disease, in severe forms, depends on the excessive fluid discharge by the bowel and a thickening of the blood. This is, perhaps, in the main correct, as thirst is always present when there are large discharges from the body, as of the blood itself, in hemorrhage, etc.; but in peritonitis, without any morbid discharges, except occasionally vomiting, the thirst is sometimes insatiable and most agonizing.

The plasma has the property of

freely passing through the blood-vessels in normal and morbid conditions of health. We have seen that it is in the medium through which all epithelial structures are supplied, as well as the finer histological elements of every other tissue in the body, passing out through the walls of the capillaries with the necessary pabulum to maintain its vitality and functions and returning through the vessel's walls to be carried onward in the venous current, back to the centre of the circulation. The plasma escapes through the capillary walls in enormous quantities, under a multiplicity of pathological conditions, though generally considerably altered in its chemical, physical and histological composition.

It is most remarkable how tenaciously we cling to terms which have once become current, although there never has been rational grounds for their employment. Thus, we everywhere see scattered through modern medical literature the word "serous effusion," in local or organic inflammation, which we know for a certainty, in all osmoses concomitant with it, those effusions contain an abundance of fibrogenous elements.

Although, of late years, the blood corpuscles have been specially studied, they really are of secondary importance as compared with the fluid in which they float.

Before the days when the microscope was so generally employed and cellular pathology was promised to explain so much, the chemistry of the blood occupied a prominent place in medical studies. But, with the exception of attempting to isolate a few more proximate principles, for the past twenty years chemistry has added but little to our knowledge of hematology.

Perhaps, the custom of relying too exclusively, in our practice, on the light coming through the microscope, to the exclusion of chemistry, has been a mistake.

It may be partly explained, however, that in order to derive any definite information through a chemical examination of those fluids which are derivatives from the blood, nothing less than an expert knowledge of

chemistry will answer; as a well-equipped laboratory and all those accessories in technique of manipulation, reliable reagents, etc., are indispensable, in order to avoid error and attain to precise results.

The plasma, it must be remembered, is a living, physiological fluid, probably more intimately associated with the corpuscles, than is generally supposed and, though there are of late years; reasons for believing that the red bone marrow, the lymphatics and the thyroid are concerned in the production of the blood corpuscles, we have no proof that they are generated in the plasma itself.

We are only certain of the presence of corpuscles in the blood, by contrast or color, as we see them; thus the red corpuscles which appear yellow, and the so-called "colorless" corpuscles which are of a much lighter shade, are readily recognizable; but of those corpuscular elements of the same refractive index and color of the plasmic fluid itself we have no knowledge whatever. The blood corpuscles themselves, in various territories of the skeletal capillaries, are seen to halt and seem to maintain a firm hold on the capillary wall, to move on after varying intervals. May it not be, that in all these situations, a material similar to the spawn of fish, or species of mycelium—like buds that, in time, become impregnated and detached, though only coming into view, as they take on color and appear, first, as hemoblasts?

The blood to the human body is the same as the ocean and its tributaries are to the earth. The ocean is the centre to which all must return to be purified. Its water is salt. Let us compare it to the arterial blood. The atmosphere is soon charged with its evaporating fluid, periodically as rain is deposited on the earth, to again move towards the ocean, as fresh water. Now let us compare this to venous blood in the veins, and we have a striking analogy.

Now in the cycle which the blood makes in the body all the tissues are flushed by a fluid in rapid motion. It might seem that this motion might render reproduction of the corpuscles

in the current impossible. But in the lymphatic glands and spleen the extreme tortuosity of the vessels form eddies and stases near the periphery, where movement is probably irregular.

Plausible and interesting as may have been the views of many distinguished investigators on the sources of the corpuscular supply of the blood from extrinsic sources, they do not demonstrate that the plasma itself is not the fons et origo of it all, as will be later noted.

THE PLASMIC CURRENTS.

It has been noted in the preceding chapters that the blood corpuscles do not and cannot penetrate the ledges of basic substance in which all epithelial elements are lodged; or, in other words, in the generally accepted sense, the epithelia are avascular. This statement, however, seems rather difficult to reconcile with well-established facts, for we know that many substances which enter the stomach are carried to certain organs, e. g., the kidneys, by the blood and thrown off by the renal secretion. But how do they penetrate the walls of the renal epithelia, when no blood-vessels pierce them? Evidently in no other manner than through the plasmic current.

What is the chemical composition of this fluid? Physiologists commonly give us only an approximate idea of its chemical composition, or morphological characters, for the simple reason that the moment it leaves the blood-vessel its decomposition commences, and its death begins. Denis, one of the latest writers on this topic, was able to separate the corpuscles from the blood, and preserve it in a fluid state by the addition of one-seventh part, in volume, of a concentrated solution of sulphite of soda to freshly-drawn blood. Then to the decanted plasma he added an excess of pulverized sodium chloride, when a soft, pulpy material was precipitated. This, he decided, was a proximate principle, which he designated "plasmine."

This substance is soluble in ten parts of water, which may now be once more divided by whipping with

broom corn into pure fibrine, or, as he called it, "concrete fibrin," and "liquid fibrin," or as it is lately called, "metalbumen." The liquid fibrin may be coagulated by the addition of sulphate of magnesia. But, what does all this prove in connection with the question of the actual composition of the living, moving fluid? Certainly nothing more than was known long ago on this point. Twenty years ago it was taught that fibrin was a definite, proximate principle. But now it is well known that, as fibrin, it does not pre-exist in the blood, and that coagulation is dependent on a ferment. Nevertheless, the older view strikes one as the more rational, for the evolution of this nitrogenized substance was spontaneous, and occurred in the moving current, as well as when withdrawn from the body. Plasma, metalbumen, or serum are the products of chemical reagents acting on the blood, and are in no sense normal elements, but rather artificial products, as much so as soap is the resultant of an alkali acting on a fat, and casein the product of a ferment acting on milk.

Of the definite chemical principles composing the plasma in the living blood within the vessel we know nothing. All that can be said of it is that it is the vitalized fluid in which the corpuscles of the blood float, and that in all the processes of nutrition and repair of the tissues it plays a dominant role.

Modern hematologists and physiologists have given its study but little attention, and have rather bent their energies to the study of the corpuscular elements; their probable source, function and destination.

No effort has been made by me to further investigate the composition of the plasma, but rather to direct attention to its functions in the economy.

My own observations and reflections have led me to the conclusion that this fluid chiefly serves as a medium of transportation of all the nutrient elements of the circulation, as well as the residuum of tissue metabolism to the excretories; the blood corpuscles being concerned chiefly in

the elaboration and preparation of those finer changes which all elements must undergo before the glandular organs can assimilate them.

As we view the movements of the blood, within its transparent tubular conduits, we can distinguish nothing in motion except the corpuscles. These flit and shoot in every direction, but the plasma, as far as the eye can detect, is motionless.

This limitation of visual inspection is what prevents us from following the plasmic stream, which, though not foreused through tunnels, after it leaves the capillaries, must yet preserve an active interchange through the connective tissue meshes and the endless epithelial and endothelial elements, which are everywhere imbedded in the stroma of organs.

Of one thing, at least, we are certain, viz.: that the plasma is chiefly composed of water; that all the water taken into the body is promptly appropriated by it for irrigating and other purposes, and nearly as promptly carried to the secreting organs and thrown off.

In order, however, that the economy may utilize it to the best advantage, water must be ample in quantity, and pure in quality. The farmer well knows that next to a rich herbage, his choice milking cows must have an abundance of good water. And so it is with the human body and human blood; pure, fresh water are their most essential aliment.

All epithelial structures require a large quantity of water. To the sudoriparous glands in the integument, in very warm weather, enormous quantities of water are carried by the plasma and thrown off. During intense heat evaporation of moisture from the surface of the body is so great as to reduce the aqueous elements of the blood and tend to thicken it. Besides, its temperature is raised. In this condition copious draughts of water, both cold and hot, dilute the blood.

Water leaves the plasma, quite unchanged, with the exception of an admixture of chloride of sodium. Whether this, like hydrochloric acid in the stomach, is a product or secretion by the epithelia, or is abstracted

from the saline elements in the blood, is unknown.

The plasmic currents on the surface of the body, those which course through the broad expanse of integument, although they give off water freely, are quite powerless to take it up, or absorb it; as the skin is practically impervious to all aqueous elements, and but very few medicaments can enter the general circulation; the principal exception being mercurial ointment, which is composed of the pure metal and a fat.

But how this material, either in oil globules or as unchanged mercury, can pierce three layers of stratified epithelia and enter the capillaries, cannot be explained. It has been supposed that the saline secretion acts on the metal and forms a soluble chloride, but when mercury has been so applied on the skin of a dog lustrous particles of the metal have been found in the liver and kidneys. With the plasmic current of the peptic glands of the stomach, the mucous, and Lieberkuhn's of the pylorus and small intestine it is directly the contrary to what we witness in the skin; for the epithelia, which line the intestinal canal, as far as the *caput coli* at least, possess the dual function, in a large measure, of both discharging and resorbing fluids.

In conditions of acute thirst, when the stomach is empty, it is believed

that water after being swallowed is at once taken up before the pylorus is reached.

The pulmonary organs are third in order as excretory conduits of aqueous elements of the blood.

With every expiration a jet of vapor is sent out through the trachea, impalpable in warm weather or a temperature above 40 Fahrenheit.

We are only conscious of its volume when freezing is reached and condensation is perceptible.

We are not able to determine what the precise limit of the lungs is, in absorbing moisture, although, it is quite obvious from observation, under various conditions, that it is considerable.

All are aware that a damp, moist atmosphere will diminish thirst, and lessen bronchial irritation. We know that the lungs exhale other elements than carbonic acid, that the breath is offensive after certain substances are eaten, and that in various deranged conditions of health it is very offensive. It is clearly evident, then, that the epithelia which stud the alveoli of the air vessels can thus abundantly discharge fluids and gases, and are the centres of active oxidation. Water must enter them from without, as well as through the plasmic currents, which, in these structures, are less marked than in the skin or intestine.

(To Be Continued.)

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

CHAPTER I.

Definition, Synonyms, Origin, History.

The word onanism was introduced into France by Tissot, who took it from an English work, *Onania*, which was attributed to Dr. Beekers, of London. The expression onanism is the generalization of the proper

name Onan, whose story is found in Genesis xxxviii.

"Dixit ergo Judas ad Onam, filium suum: Ingredere ad uxorem fratris tui et sociare illi, ut suscites semen fratri tuo.

"Ille sciens non nasci sibi filios, introiens ad uxorem fratris sui semen fundebat in terram, ne liberi fratris nomine nascerentur, et ideo per-

cussit eum Deus eo quod rem detestabilem faceret."

The word "onanism" was improperly used by Tissot; for this passage from the Hebrew historian and legislator is far from proving beyond doubt that Onan masturbated; it even proves the contrary to those who take the pains to seek the sense and not the words of a phrase.

In order to comprehend the passage which has given rise to the erroneous interpretation of Onan's act, it seems proper to give an abstract of the usages and customs of the Jews instead of relying wholly upon one verse of the Bible, different translations of which may have sensibly altered the meanings of certain words.

Here are some articles from Deuteronomy, chapter xxv, which will explain what we desire to know:

Verse 5.—If brethren dwell together, and one of them die, and have no child, the wife of the dead shall not marry without unto a stranger; her husband's brother shall go in unto her, and take her to him to wife, and perform the duty of an husband's brother unto her.

Verse 6.—And it shall be, that the first-born which she beareth shall succeed in the name of his brother which is dead, that his name be not put out of Israel.

Verse 7.—And if the man like not to take his brother's wife, then let his brother's wife go up to the gate unto the elders, and say, "My husband's brother refuseth to raise up unto his brother a name in Israel; he will not perform the duty of my husband's brother."

Verse 8.—Then the elders of his city shall call him, and speak unto him; and if he stand to it, and say, "I like not to take her;"

Verse 9.—Then shall his brother's wife come unto him in the presence of the elders, and loose his shoe from off his foot, and spit in his face, and shall answer and say: "So shall it be done unto that man that will not build up his brother's house," etc.

With these data it is easy for us to reconstruct the episode which concerns Onan, as Lallemand has also done. Her, the first-born of Judas, and husband of Tamar, died with-

out issue; his brother Onan was then forced to marry his sister-in-law to escape the scandal mentioned in the fifth book of Moses. That is why Judas advised him to marry Her's widow. Onan obeys his father. But, by his brother's death he has become the eldest of the family, and, as the law authorized him to have other wives, he could hope for a son legally his own, to perpetuate his own race. So, instead of accomplishing normally the conjugal relations he "frauded," as Dr. Bergeret felicitiously expresses it, or, if you wish, "ejaculabat extra vas" as the casuists put it.

This act, as may easily be seen, does not constitute masturbation, and it is only necessary to glance at the book entitled "*Des fraudes dans l'accomplissement des fonctions generatrices*" to learn that many married people—for what purpose is of no consequence to us—do identically the same thing as Onan. These people are given to onanism in the absolute, etymological sense of the term, but they are by no means addicted to what is commonly called masturbation.

Given these facts, we might be blamed for employing a misleading and vicious term for the title of our work. We hope that we shall be pardoned this defect when we explain that we have made use of this word as of a scarecrow, to keep away from our work the non-medical and ignorant public to whom this term is far less familiar than the word masturbation.

Al. Schwartz, of Strasburg, in his inaugural thesis, 1815, says: "Onanism is a deadly habit, followed by an unnatural evacuation of the spermatie fluid caused by handling or by an ardent imagination."

This definition is bad. It is neither precise, general nor exact. It cannot be applied to women who have no spermatie fluid unless one commit the heresy to regard as such the liquid secreted by the vulvo-vaginal glands.

Besides, an ardent imagination may possibly, in certain cases of absolute continence, of atony of the genital organs or of cerebral disease, provoke the venereal spasm; but

would we be justified in treating as masturbators a continent man or a woman afflicted with nymphomania.

This definition, with all its defects, may be pardoned to an author of 1815, but to see an author of our day reproduce this ancient definition, word for word (and without giving Dr. Schwartz credit), is rather remarkable.

In the twelfth edition of Nysten, by MM. Littre & Robin, we find "Masturbation, manustupration (manu hand and stuprare to soil); excitation of the genital organs with the hand, called also onanism. It is the more dangerous because of the numerous opportunities to practice it."

This second definition is better than the first, but still so incomplete that I propose the following: "Onanism in women is an act against nature done with a living organ (hand, tongue, etc.), with some sort of instrument (cologne bottle, dildoes, etc., etc.), or with special movements, partial or general, with the intention of provoking the venereal spasm. It may either be solitary or performed in common."

Besides the words onanism and masturbation, the following are sometimes employed: "Manusturbation, cheiromania or chiromania, manustupration, Onan's crime, mastupration, solitary libertinage, manual defilement, unnatural passion, solitary passion, manual vice, solitary manuever, genital vice, and many others. (I).

Starting from the fact that not only in the human race is this vice met with, but that dogs, turkeys, etc., and especially monkeys, give themselves up to it furiously, I do not intend to discuss whether or no masturbation is natural, but leave that to others more clever and learned than myself. I will only say that onanism seems to have existed in both sexes from the earliest times.

I will not, as many authors have done, insist upon the story of Onan; I have shown above that their interpretation of the passage was erroneous, and besides I do not intend to touch upon this vice in the male;

I. Some authors have used the term nymphomania as synonymous with masturbation, thus creating a regrettable confusion without any plausible reason.

neither shall I descant on this verse of Ezekiel "et fecisti tibi imagines masculinas et fornicata es in eis." Chapter xvi, 17.

If, when separated from its context the above quoted passage seems to leave no doubt as to the manuevers of the Jewish women, it is by no means so clear when taken as a whole.

"Verse 16.—And of thy garments thou didst take and deckedest thy high places with divers colors, and played the harlot thereupon, the like things shall not come, neither shall it be so.

"Verse 17.—Thou hast also taken thy fair jewels of my gold and of my silver which I had given thee, and madest to thyself images of men, and didst commit whoredom with them.

"Verse 18.—And tookest thy broidered garments, and coveredest them, and thou hast set mine oil and mine incense before them.

"Verse 19.—My meat also which I gave thee, fine flour, and oil, and honey, wherewith I fed thee, thou hast even set it before them for a sweet savor, and thus it was saith the Lord God."

Do not let us forget that Ezekiel was addressing not a woman, but a whole people, Jerusalem, of which he synthesises the abominations, and by images of men he means the statues of strange gods in human form, idols to which the Jews offered sacrifice in spite of the express and terrible prohibition in Deuteronomy.

"Cursed be the man who maketh any graven or molten image, an abomination unto the Lord, the work of the hands of the craftsman, and putteth it in a secret place."—Chapter xxvii, v. 15.

Thus by confining ourselves to the words and not the spirit of the text we wrongly get the idea that by images of men is meant instruments of masturbation for the use of women; and Dr. Jeannel (I) has erroneously underscored the words of the Prophet Ezekiel by the following note: "Images of men are publicly sold at Tien-Tsin. They are made in Canton, of a gumme-resinous mass which has a certain elasticity. They are

I. De la prostitution dans les grandes villes au xiv siècle.—J. B. Balliere, Paris, 1868, p. 75-76.

rose or flesh-colored. Some albums offered freely for sale represent naked women using these instruments, which are attached to their heels. They are also made in porcelain for objects of art and adornment." The existence of phallus and the use made of them by the inhabitants of the Celestial Empire are incontestable, and Captain Wattremey has confirmed these facts while adding that they were not openly exposed for sale. (II).

Nowhere in the Bible is the vice of masturbation clearly described, and if we have stated that this vice has probably existed in all ages it is because we know that it is often the consequences of causes which are essentially organic, inherent in human nature, causes which must have acted, formerly as to-day, identically and produced the same results.

Among the Greeks, Sappho the erotic, and the young Lesbian girls, had the reputation of despising men and of sacrificing to Venus alone; they were surnamed "Tribades." Tribadism (tribein, to rub) was then as now mutual masturbation, unless we believe in a strange endemic of clitorism among the women of Lesbos (III).

II. Five years ago every Cheap John of the Parisian boulevard had them for sale.

(III.) At the time when Parent-Duchatelet was compiling his great work on prostitution, he made an investigation of the development of the clitoris and found that in the whole city of Paris there were but three prostitutes where it was of unusual dimensions.

The largest of these was three inches long and equalled in size the penis of a boy from 12 to 14 years, which it exactly resembled.

It is a matter of general belief that among those women who seek each other's society for tribadism, those who are equipped with a voluminous clitoris are the most inciting and the most sought after. It is by no means so. The three prostitutes of whom I have just spoken were of the utmost indifference towards their own sex and had no great liking for men, so that their peculiar configuration, far from predisposing to lasciviousness would, on the contrary, seem to have tended to enfeeble it. * * It has often been observed, that those girls who do seek each other's society and in whom this perverse instinct has the firmest hold, are noticeable for their grace, their sweetness and their youth, in short for all those qualities which render them attractive to men. Giraudeau, *Traite des Maladies Syphilitiques*, p. 550-551.

In Rome, under the emperors, man-ualization was much enjoyed by the "sometimes tired but never satiated matrons," as Juvenal has it. At this epoch women used chiefly the priapus or phallus—(phallos, penis)—either of wood or of precious metals.

"Antique phallus found at Herculaneum and Pompeii are numerous in the Naples museum. The most of them are in bronze or gold, etc.

(Musée de Naples, edit Ledoux, p. 29).

Tribadism was also extremely common at this period if the satirists are to be believed.

It will be sufficient to quote the following verses from Martial and Juvenal, to show that the Roman women were fully as licentious as those of Lesbos:

Lenonum ancillas posita Laufella corona
Provocat, et tollit pendentis præmia
coxæ
Ipsa Medullinæ frictum crissantis adorat
* * * * *
Nec ibi per ludum simulatur, omnia fient
Ad verum * * *

(Juvenal Satire vi.)
In Philoenin

tribas Philoenis.
Et tentiginie sævior mariti
Udenas vorat in die puellas
* * * * *
* * * Quum libidinatur
Non fellat putat hoc parum virile.
Sed plane medias vorat puellas.
Di mentem tibi dent tuam, Philoeni.
Cunnum lingere quæ putas virile.
(Martial, lib. vii, 67.)

There is nothing so very remarkable in this when we think what powerful genital excitants many of the religious festivals of these times were; some of them being simply luxurious orgies and incentives to debauchery.

Finally, it must be acknowledged the matrons preferred solitary pleasures and tribadism to sexual connection, because they found there a means of calming their erotic passion without having to fear pregnancy and its sequelæ.

This is so true that the Latin women, when they could, gave themselves to eunuchs who procured them physical enjoyment without imperiling their beauty, that child-bearing would have ruined.

Here is what Juvenal has to say on the subject:

Sunt quas eunuchi imbelles, ac mollia
semper.
Oscula delectent, et desperatio barbae.

Et quod abortio non est opus, Illa voluptas
 Summa tatum, quod jam calida matura
 juvena
 Inguina traduntur medicis, jam pectine
 nigro:
 Ergo expectatos, ac Jussos crescere
 primum
 Testiculos postquam coeperunt esse bilibres
 Tonsoris damno tatum rapit Heliodorus
 (Juvenal, vi, 36f.)

In the Middle Ages debauchery and that promiscuousness of the sexes dependent upon poverty were at their height, and possibly a part of the causes of those epidemics of nervous diseases: epilepsy, hysteria, chorea, catalepsy, ecstasy, uterine furor, etc., then called crimes of sorcery, which attacked many at a time and which the canonical judges cured so merrily by burning the victims at the stake, could have been referred to manualization.

In our day, onanism has passed, so to speak, into the customs; it may even be more widespread than formerly, but it is less visible. It is concealed, and with justice, as a shameful vice.

We have not to occupy ourselves with the men; as to the women, if there are many who give up manualization after marriage there are many who keep up this deadly habit during conjugal life and widowhood, or only take it up at this period; we shall endeavor further on to give the reason for this state of things.

Those who will persistently deny this have only to examine the literature of the times. Two novels, *Mademoiselle de Maupin*, by Th. Gautier, and *Mademoiselle Giraud, Ma Femme*, by A. Belot, have tribadism or mutual masturbation as their point of departure, and of the shorter stories dealing with this subject, their name is legion. Now novels are by no means, as is too often thought, mere creatures of the imagination; they are also the reflection of the times which see their birth. Novelists rarely invent passions or vices; they only present them in an agreeable and attractive form.

If that is not enough for the incredulous, let them frequent, as a last resort, the stages of the minor theatres or, still better, of the concert gardens, and what they will see

and hear there will not leave any doubt as to the frequency of masturbation, both solitary and in common.

CHAPTER II.

Varieties.

As I have already hinted, there are several forms of masturbation in women. I shall review them rapidly while classifying them.

We will first make the following grand divisions according to the anatomical configuration of the genital organs: A, vaginal masturbation; B, clitoridian masturbation; C, urethral masturbation.

A.—Vaginal Masturbation.

This form is rarely extraneous or in common, but is generally personal and solitary, and less frequent than clitoridian masturbation. It consists in maneuvers made with candles, ends of broom handles, phallus, different vegetables, cologne bottles, needle cases, etc.

More than one surgeon in his practice has met with young women who, while masturbating with some one of the objects named, had the bad luck to see the instrument escape them and penetrate into the vagina so that they were unable, to their great shame, to withdraw it themselves.

Medical literature contains many observations of this kind, as well as of the loss of different foreign bodies in the urinary passages.

Although unusual in children, vaginal masturbation is especially common both in young girls and in adults, either widowed or single. Before arriving at this form of genital excitement the woman is generally blasee on the other methods of procedure.

It is an erotic refinement which finds its cause in a more complete knowledge of genital pleasures, since it is a rude imitation of coitus.

A. Schwartz (loc. cit.) reports the following case: "A woman, aged from 25 to 26 years, of vigorous temperament, defiled herself while her husband was on duty. The instrument she was using (sausage) broke, the efforts she made to remove it were in vain.

The heat and moisture of the vagina soon dissolved the ingredients of which it was composed. Engorgement of the vagina and of the labia majora, uterine pains, ardor urinae and tenesmus soon came on. Anxiety, fear and shame only increased the sufferings of the patient to the point that she decided to send for Mme. H., midwife. This person first wished to consult me, but she took a knitting needle, bent one of its extremities into a hook and succeeded in extracting it piecemeal. Some injections and an antiphlogistic regimen reduced the inflammation and did away with all malaise. The young woman promised not to recommence."

While interne in the hospital of Lille in 1869, I saw a woman of some 40 years of age. She was scarcely able to speak, and her face, besides suffering, showed an almost complete imbecility. I had her placed in one of my wards, where she died a few days later.

She had admitted, but with many circumlocutions, that she had long been addicted to vaginal masturbation. At the autopsy I found a perforation of the vagina, the direct

cause of the peritonitis that had carried her off—a perforation produced, doubtless, by the instrument which this woman had used to gratify her ignoble passion.

A woman consulted Dupuytren for an ailment in the vulvo-uterine canal. Touch showed easily that there was a foreign body here whose nature could not at first be determined, but the patient persisted in not giving any information on the subject.

Examination showed that the object, whatever it was, had a large opening and a deep cavity. The swollen vaginal walls by covering its edges prevented penetration to the object and furnished considerable resistance to seizing and disengaging it from the vaginal cavity. Finally, a successful extraction was made, and the mysterious object turned out to be—a pomade pot!

These are not isolated facts. A woman from the neighborhood of Vichy has told me that in her country she had often heard of and sometimes seen the peasant women use radishes, carrots or parsnips to calm their desires. *O mœurs pures des champs!*

(To Be Continued.)





Editorial

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SALUTATORY.

We wish all our readers a happy and prosperous New Year.

This is not saying that we wish our lay-friends misery and suffering. Far from it. We have not confined our first paragraph to physicians only.

With this issue we begin a new era of work on "The Times and Register," and we trust its new dress and general aspect will commend themselves greatly above our former issues. We strive to work along the lines of advancement, and if we have cut off half our issues for the coming year, they will be more than replaced by the character and increased pages of the issues we intend to give our subscribers.

Our pages have been increased from twenty of reading matter to forty. The whole journal from forty pages to sixty-eight. We have added a colored cover to improve the outside appearance.

The general arrangement of the reading matter has been altered so as to more easily sub-divide our work. We are well provided with accurate translators for our foreign exchanges in French, German, Russian and Italian, and a new department has been added for the benefit of the physician's wife.

Serial articles will be found, which are of the utmost importance to every physician who desires to keep up with the advancement of medical knowledge. Two such articles, Dr. Manley's, on "The Blood and Circulation," which is continued from last number, and which will soon pass from the physiological to the practical part; and Dr. Pouillet's, which is translated for us by Dr. Chandler, on "Onanism in Women," treat of subjects of vital importance to the general practitioner.

The department of Electro-Therapeutics under the efficient care of Dr. S. H. Monell, of Brooklyn, begins its third year with this journal. This department has been exceedingly interesting in the past, and its editor assures our readers that no effort will be spared on his part to make it even more so this year. To this department are invited original articles from any who have practical knowledge of the subject of medical electricity, whether they be considered specialists or not. The department is maintained for the purpose of education along this line, and, although our support from instrument manufacturers has been poor and discouraging, with one exception, from a Baltimore firm, yet

the work has gone on just the same, and has been most practical to the general practitioner. We look for better support this year from the profession, and trust some of our readers will continue their interesting articles.

It will be noticed that the subscription price has been advanced to two dollars a year. This was a necessity from the fact that the cost of output of this journal is increased this year over former years. It is still under the old price of three dollars, which was reduced principally on account of hard times in 1894. We feel con-

fident that no subscriber will have cause to complain this year on account of the slight raise in price, for he will be unable to purchase the material we propose to issue for five times the amount of the subscription price were he to find it purchasable in book form.

We, therefore, extend to our readers the compliments of the season, and trust that they will find in this issue of our journal for 1896 sufficient to warrant the continuance of their own subscriptions and a cordial recommendation of "The Times and Register" to others.

THE TREATMENT OF HEMOPTYSIS.

Practically there is no condition which calls for emergency treatment where the demands are so urgent upon the resources of a physician as in a case of profuse pulmonary hemorrhage. The alarm of the patient and friends is extreme, and the shock is always out of proportion to the loss of blood, unless the hemorrhage be sufficient to prove fatal.

With some exceptions hemoptysis is to be regarded as the forerunner of phthisis, and the laity have so been taught to look upon this condition.

Bleeding from the lungs differs in many respects from hemorrhages of other organs, the cause of which is apparent when one studies the minute anatomy of the parts. It is here that the objective symptoms differ from those observed in ordinary hemorrhage, the bright blood is venous and the dark arterial.

It must be remembered that there is a general classification of hemoptysis as belonging to one of five varieties: simple, congestive, ulcerative, cavernous and extra-pulmonary, and that it differs very much as to what course of treatment to apply in which class a given case of hemoptysis occurs.

The simple variety, or ideopathic, as it is sometimes called, is rarely met with, and does not generally indicate important lung affection. The

second, or congestive, form, we most often meet with in the early stage of phthisis, and the treatment of this form is most important.

Probably there are not nine physicians in every ten who would consider he was justified, when called to a case of hemoptysis, in giving anything else than ergot, and, indeed, this drug would seem to be indicated were the hemorrhage one belonging to the third or fourth varieties. The variety is not always apparent or of practical use when one is in a hurry to control a hemorrhage, but we must also remember that it takes some twenty to thirty minutes for ergot to act, and that an ice pack is more often a quicker and certain remedy in sudden hemoptysis.

These congestive hemorrhages generally come from the venous system, and our important point to remember is that we should strive to free the veins from engorgement. This is generally best met with by digitalis. We recognize in this drug an agent which, while it increases arterial pressure, which would seem to contra-indicate it in arterial hemorrhage, will place more power of action on the ventricles of the heart and keep the arteries supplied with a surplus of blood at the expense of the veins. This is just what is most desirable in congestive hemorrhages. In arterial hemorrhages, as are apt to occur in uterine and other organ-

ic bleedings, we need to contract the arterial system and place the most of the work on the venous system.

Quiet is always essential, and to procure this we may have to resort to opiates. The condition of the blood

also requires attention, and for a few days we will require hemostatics, such as turpentine, gallic acid, cupric sulphate. Ipecacuanha is also of service in pulmonary hemorrhage when given in large doses.

STILL AT IT.

Professional desire for notoriety never ceases. The American Medical Review gives an account of an interview with Dr. Edson, of New York, in which the latter affirms that a new cure for consumption has been discovered, but the matter must still be guarded as a secret. Indeed, it is of such detail that only few physicians will be able to apply it without special study. Of course, it is along the line of hypodermic medication, is said to be composed entirely of chemicals, and a sure cure for yellow fever and malaria as well. One case cited cures malaria in one hour; another tubercular hip-joint disease in three weeks.

We are at a loss to know when these so-called wonders will ever cease, and reputable men, who go meandering off for the sake of short-lived notoriety, be restored to true professionalism. No doubt, a few

pennies might be realized by following such a course from the ever-vulnerable public, but the large part of the profession have become so used to this sort of preliminary advertising of a new idea that they will not be materially affected.

When medical men carry on investigations of an experimental character we believe that they would serve their brethren, the public and suffering humanity a much more useful purpose if they would keep still about their discoveries until they had perfected them to an absolute certainty, and then evolve their knowledge in its entirety for professional benefit.

When we arrive at the method of cure of tuberculous hip-joint disease in patients who "could not walk a block" so that in three weeks they have recovered, and can cure malaria in one hour's time, we shall perform feats little short of miraculous.

HYSTERECTOMY, ABDOMINAL AND VAGINAL.

The operation known as hysterectomy is of comparatively modern date.

Diseases of the pelvic organs of reproduction in the female had, until recent times, been treated by conservative measures, internal medication and topical applications. The conservative principle was preservation, and not destruction. Singular as it may seem on superficial examination, in the days before radical surgery came forward and claimed

the domain as its own, mortality among women from pelvic peritonitis or general peritonitis was as low or lower than to-day, the claims of operators to the contrary notwithstanding.

Pus accumulations in the broad ligament, the ovary or tube, in some manner, in those times either became encysted, inert and were reabsorbed, or the pus made its way out through the vagina, when it was said the patient had the "whites or ulceration of the womb."

Then came abdominal surgery, with all the safeguards of modern science, and perfection of technique, when operators have become emboldened not only to eradicate the lesion, but the affected organ as well.

The furor operatique swept over the world; encysted ovaries must be removed, and whoever saw one, after the rupture of a Graeffian follicle, that was not the seat of cysts in its periphery or parenchyma?

Applying the same principle to the uterus, it has now come to pass that this important organ is ruthlessly swept away, not only for fibroid growths or cancer, but for prolapse, endometritis, as a means of reaching and evacuating pelvic abscess and for purposes of "drainage."

The moral and the medico-legal aspect of this procedure seems to have been lost sight of. The only question has been how the uterus could be eviscerated by the shortest route and with the greatest ease.

Hence we have the "abdominal hysterectomist and the vaginal hysterectomist."

The abdominal line of attack was the one generally accepted until Peau, at the Berlin Congress, reported his experience with delivery by the vaginal route, and cited his large experience and success with vaginal hysterectomy.

Here in America, where the tendency is to swallow anything smacking of originality and labeled European, the new operation soon had numerous adherents.

At the general meeting of the Academy of Medicine, of New York, held on the 19th of December, 1895, the respective merits of the abdominal and vaginal hysterectomies were considered, the opening essay being by Dr. W. M. Polk, who was supported by Dr. Cushing, of Boston; Dr. Lusk and others.

The opposite side, which defended the abdominal operation, was led by Drs. Baldy and Noble, of Philadelphia, who made a scathing attack on vaginal hysterectomy, though in the course of their remarks they seemed to labor under the impression that vaginal hysterectomy was the operation of choice among New York surgeons, which is far from the fact. In all truth it must be said that neither of these operations reflects great credit on surgery. Surgery consists in something more than the performance of mutilating operations, however artistically these may be performed. Of the uterus it may be said, as of a limb, better a thousand times save one than sacrifice a score, however successfully. Whatever the abdominal route for hysterectomy may have to commend it, in rare and exceptional circumstances, the removal of the uterus through the vagina is a most unsurgical and barbarous piece of mutilation. But a woman recovers from the operation in a few days or a week, it is said. In all but occasional instances she has been physically wrecked.

The vaginal mucous membrane is widely torn away from the bladder and rectum; those horrible, incurable rectal and vesical fistulae generally follow. The broad ligament, the uterus and accessory structures, which constitute a barrier against vaginal hernia, are all cleared away.

To the uninitiated, the rapid clearance of the uterus through the vagina may seem like the very climax of surgical ingenuity; but let him watch the course of the case, the distressing convalescence, the fistulae, or large open sores, on the mucous membrane, and his enthusiasm will be replaced by an implacable detestation of the procedure. Let us hope, in the name of humanity, this operation will soon be blotted from the category of legitimate surgical procedures.





SOME OF THE SIMPLER USES OF ELECTRICITY IN THE TREATMENT OF THE PELVIC VISCERA.

BY S. H. MONELL, M. D.

With this issue we commence the third year of our regular contribution to this electro-therapeutic department. When experimental philosophy first gave practical electrical currents to the uses of the world they passed from the hands of physicists and philosophers into the medical profession, which, in turn, for the most part, passed on the gift to a shrewd and sagacious set of men called quacks, who knew a good thing when they saw it. They got great glory and money out of what scientific medicine spurned. But at all times for a century past there have been isolated men in the profession applying their genius to the creation of a reputable electro-therapy.

After Duchenne labored the task was easier. When Apostoli appeared the beginning of the end was in sight. To-day the therapeutics of medical electricity is firmly established, and not more empirically than the therapeutics of the majority of drugs. If pathology was an exact science electro-therapy would be much more exact than it has yet become, but another ten years of progress may do much in this respect.

At one time neurology almost monopolized expert skill in the uses of medical currents. Later the gynecologist took hold of the crude, cheap haphazard apparatus which supplied this agent to medicine and under the guidance of a brilliant and

methodical leader developed the manufacturer into a skilled workman, producing the high grade apparatus we now possess; and with these improved means and the surgeon's aid extended the application of electricity into half the domain of practice.

Finally, the general practitioner is recognizing the utility of acquiring sufficient knowledge of technique to keep in his own hands a great number of cases which otherwise would slip away from him—cases especially which yearly fatten the pockets of the venders of "patent medicines."

Four of our recent issues have been devoted to an important phase of electro-therapeutics, involving both refinement of apparatus and advanced knowledge of electrical methods to bring to pass the excellent results described. These uses of faradic sedation in acute local inflammatory processes have served to illustrate in a very interesting manner the broadening influence of improved appliances and the general application of the teachings of electro-physics. It is something of a jump from the old magneto-electric contrivance to the high tension induction coil currents of to-day, and from the neurologists nerve and muscle effects to the treatment of parotitis, appendicitis, carbuncle and acute inflammations of the pelvic viscera, reported in our late numbers. It is fitting that our space should be devoted

in this beginning of a new year of medical progress to the branch of work in which that progress has been most representatively promoted so far as relates to therapeutical achievements of electricity, viz.: electro-gynecology.

The pelvic affections which most concern the average physician fortunately are the very ones in which electricity has proved most reliable and beneficial.

Omitting surgical exigencies it may be fairly stated that the following conditions are more successfully treated by electro-medical methods than by any of the customary routine or topical forms of treatment which do not include electricity. In fact this agent is nearly indispensable to securing the best results in disorders of menstruation, hemorrhage, neuralgias, subinvolution, undeveloped uterus, stenosis, sterility, displacements, prolapsus, metritis, endometritis, peri-uterine inflammations, exudations and adhesions, leucorrhœa, muscular debility of uterine supports; and to these may be added uterine fibroids. Intelligent discrimination in cases of the latter will tend to obviate disappointment and prevent blame from falling upon electricity for failure to extend its influence into the realm of miracle. In their local applications medical electric currents are defeated by certain conditions—suppuration for example—and by malignant degenerations as well as by cystic tumors, etc. Electricity can accomplish enough good, however, in the female pelvis to render it unnecessary to try to make it cure everything. Classifying uterine fibroids into sub-mucous, sub-peritoneal and interstitial, it will dispel confusion in the reader's mind to state that in the interstitial class alone is Apostoli's method indicated and successful. In these cases it cures all the bad symptoms—hemorrhage and pain—arrests the growth, holds it in check and often reduces the size of the tumor, but not always.

Its great work lies in nullifying the evils of pressure and the growth of the neoplasm, and doing it safely.

Surgery removes the tumor, but interstitial fibroids are least amenable

to removal, and the symptoms and neurotic disturbances which sometimes remain after operation are very disappointing. When it is a question of choice between surgery and electricity, it is the consensus of opinion to try electricity first; for it in no ways interferes with any ultimate procedure. I shall refer in a moment to cases from my own records, but the following, reported by Dr. T. G. Garry to the Obstetrical and Gynecological Society at Leeds, England, are so interesting as to deserve reprint:

Mrs. J., age 26, married five years; sterile; backache and pelvic pain; aggravated by walking or standing; reflex symptoms; profuse leucorrhœa of a greenish color and offensive odor, dyspareunia, uterus enlarged, prolapsed and very tender to touch, great tenderness in region of broad ligaments; left ovary enlarged and painful.

Diagnosis: Metritis, endometritis, salpingitis and ovaritis.

With a history of much treatment and little benefit Dr. Garry pursued ordinary methods for four months without result, when a choice between laparotomy and electricity became an ultimatum. The patient preferred electricity. The galvanic current was employed May 17, 1890, applied 50 milliamperes positive, intra-uterine current for four minutes. There was a great deal of reddish discharge afterwards, which continued during the following day. May 23 gave 80 mil., four minutes, which was too strong a dose and which was reduced to 45 mil. on the next application, five days later. Treatment was continued with intervals of rest until the middle of February, a total of 35 intra-uterine applications; 22 positive and 13 negative.

Results: Leucorrhœa had ceased. Uterus freely movable without the slightest pain. Peri-uterine tenderness had disappeared, and left ovary could not be felt by an ordinary examination. Two years later she was delivered of a healthy child, and at date of report was pregnant again.

The superiority of conservative electrical treatment (when it is successful in such cases) is in no way

more plainly pointed out than by considering the possibilities of motherhood after the thorough going laparotomist had got through with Mrs. J. An artificial menopause in early life is not desirable.

Miss P., age 25. Constant backache; pain and dragging in pelvis, especially in left side, aggravated by slightest exertion; dysmenorrhea, leucorrhea and menorrhagia. Uterus enlarged, anteflexed and congested; fullness and tenderness in the region of the left broad ligament.

Diagnosis: Uterine and ovarian congestion; probably salpingitis (left) anteflexion, stenosis, hypertrophy of uterus. Previous dilatation had afforded no relief; dysmenorrhea had been getting worse for a year, despite local treatment, and removal of the ovaries was proposed.

Again the patient preferred electricity. Treatment with the constant current was begun on July 2, 1890. Vaginal, 30 mil. positive, five minutes, to relieve the pelvic congestion. Repeated every second day till July 10, when it became possible to pass intra-uterine electrode. The uterine cavity was then found to be over four inches in depth. July 17, menses, lasting five days; pain slight.

July 27 resumed, with 55 mil. positive, application five minutes. August 5 and 8 gave 20 mil. August 15, 50 mil.; five minutes.

Menstruated August 26, flow much less and comparatively painless.

Treatment was continued until October 25. Result: Dysmenorrhea, menorrhagia and pelvic pain permanently relieved; patient continuing well after the lapse of three years.

Mrs. W., aged 25. Sterile; constant backache and pelvic pain; painful evacuations, menorrhagia and leucorrhea.

Diagnosis: Endometritis, retroversion, congestion of left ovary.

Treatment: June 24, 1890, 40 milliamperes, intra-uterine, positive, five minutes. June 30, 50 mil., and July 5, 60 mil. were given, with lessening of discharge. July 9, complained of pain and bearing down feeling. Left ovary enlarged and tender. Administered 60 mil. positive, five minutes, which was followed by a sanguineous

discharge lasting for twenty-four hours.

July 12, reported felt much better; gave 70 mil., seven minutes. Treatment continued till 29th, when she had gone nearly a fortnight beyond her period. Gave 50 mil. negative, five minutes, and next period was practically normal. Treatment was kept up till October 7, when she was entirely free from discharge and pain, and the uterus was normally situated.

Miss J., age 21. Amenorrhea; had never menstruated. The treatment employed was constant current percutaneously. After 12 applications menses appeared and thereafter continued regularly. In cases of primary amenorrhea it may be stated in passing that the presence or absence of any subjective sensations is a guide to estimating the probable value of electric stimulation. If entirely absent, from sexual non-development the current cannot regulate a function which does not exist—but in irregularities, suppression from neurotic causes, anemia, cold, etc., electricity in one form or another has, since the long list of cases of Golding Bird, before 1840, down to the present time, been the one agent upon the use of which the results could be predicted with well-nigh mathematical certainty. The careful physician will, of course, exclude pregnancy and will in anemic states attend to the general condition, but when properly indicated and rightly applied electricity is potent, both to control bleeding states of the uterus and to restore the diverted menstrual function.

Mrs. R., widow, age 32, three children and one miscarriage. Menstruation absent for over a year, but has each month a sanguineous discharge through the nostrils; the face being also swollen and tender to touch, with a great deal of watery discharge from the eyes.

November 4 administered 40 mil. negative galvanism, intra-uterine, five minutes. Gradually increased this as tolerance permitted, till at the ninth seance 70 milliamperes was reached. Menstruation reappeared and continued regularly.

Mrs. M., age 27. Sterile; before marriage menstruation was regular and painless. Since then has suffered severely from dysmenorrhea. During the first day and before flow is established has several fainting spells. Leucorrhea, resembling white of egg. Diagnosis: Antelexion, with enlarged fundus; stenosis; endocervicitis; pin-hole os; uterine cavity 3 1/4 inches. Treatment was begun August 28, with 20 mil. positive gal. to cervical canal, four minutes. September 4 and 8, 20 and 25 milliamperes, positive, five minutes. September 12, 40 mil. neg. intra-uterine, five minutes. September 17, flow appeared.

Had a good deal of pain; fainted once. Continued treatment till October 16, when next period occurred. It was quite painless, without fainting symptom. In the two months she had eleven treatments and uterus is still anteverted, but otherwise she has been permanently relieved.

The dilatation of pin-hole os and of stenosis of the uterine cervix by the electrolytic method is one of the most satisfactory things in local treatment. Simple, quickly performed, absolutely painless and without risk, it is infinitely preferable to instrumental division, both in the operation and result.

Mrs. C., married; two children; has pelvic pain, menorrhagia; flow usually lasting ten days; latterly she has been unwell every fourteen days; profuse leucorrhea; uterus retroverted, enlarged and low in the pelvis; fundus tender to touch; cavity 4 1/4 inches.

Diagnosis: Retroversion and hypertrophy of uterus with chronic metritis.

October 16 gave 45 mil. positive gal., five minutes. October 20 and 23, 55 mil.

October 24, flow commenced to-day and continued profusely for ten days, the current strength having been too small to control it. November 13, 17, 24 and 27 positive 60, positive 70, positive 75 and positive 70 milliamperes respectively, were given for five minutes. December 5 flow appeared, lasting five days only, although very pro-

fuse. Four treatments of 78 mil. each were given in December, and at irregular intervals during January, February and March. Periods continued regular, but profuse.

Recognizing that dosage hitherto had been insufficient to accomplish the result, 120 mil. was given for six minutes on April 1. April 9 flow began, lasting five days, and normal in every respect.

April 19, 120 mil.; April 26, 170 mil., and April 28, 190 mil., were given with final treatment of 100 mil. on May 5. May 9 menstruation was normal; the patient remained well, and at this time is pregnant and expects to be confined in about six weeks.

Mrs. A., age 43. Has suffered for several years from menorrhagia; flow lasting usually eight days. Is usually kept in bed for the first three days; profuse leucorrhea; constant pain in left ovarian region; worse after her period; os patulous and cervix extremely congested. The treatment of this soft, bleeding uterus was begun November 19 with 30 milliamperes of positive galvanism for five minutes.

November 22 and 25 dose was increased to 40 and 50, which was still too little, for next period was more profuse than usual. Three applications of 60 mil. were given in December with small improvement, and treatment was suspended until March, when four applications were given, raising the dose from 80 to 115 mil. This proved adequate, the next period was normal, and the gain has been permanent.

Miss H., age 26. Has suffered for several years from dysmenorrhea. On examination nothing abnormal was detected beyond a hyperesthetic condition of the endometrium and spasmodic contraction at internal os. Six intra-uterine positive applications of the constant current completely relieved this case.

Mrs. B., age 38; one child; menorrhagia; flow usually lasting three weeks and accompanied by great pain; uterine cavity measures eight inches.

Diagnosis: Fibroid tumor of uterus reaching above umbilicus.

Treatment began December 11 with positive galvanic application of 35 mil. four minutes. December 15 gave 70 mil. Had sanguinary discharge lasting a day. December 18 period very profuse and painful. January 8 and 14, gave 60 and 68 mil. On January 20 her period was much less profuse. Treatment was continued during February, March, April and May, and renewed again in October and November, the largest dose being 170 milliamperes, and applications 24.

Result: Since March 16 periods have been normal in every respect, averaging four days in duration and free from pain. There is a decided diminution in size of growth, which was growing rapidly before electrical treatment was commenced.

Mrs. W., age 39; two children, four miscarriages; duration of illness two years; menorrhagia; flow lasting usually three weeks, and accompanied by great pain, at times of a spasmodic nature; reflex symptoms; uterus over four inches deep.

Diagnosis: Interstitial fibroid of the uterus. Treatment began February 18. Thirteen applications were made by May 2, when her period was normal for the first time in two years. Continued treatment during May and June.

Result: She has been permanently relieved and enjoys good health.

Mrs. L., age 24; married six years; sterile; uterus acutely anteflexed; a large intra-mural fibroid projecting through the anterior wall. The posterior cul-de-sac is occupied by a hard painful swelling about the size of a hen's egg, and probably inflammatory exudate; cavity of uterus, 4.1-2 inches; menorrhagia and dysmenorrhea; flow lasting 12 days, with severe pain most of the period. Distinguished gynecologists (non-electrical) had suggested operation, after failure of medical procedures. The patient shrunk from the prospect and welcomed the hope of benefit from electricity.

When first seen she was completely blanched by the hemorrhages of thirteen months. She was unable to walk without assistance, and it was with great reluctance that the case was undertaken.

May 18.—Tentative treatment was begun with 30 mil. intra-uterine, the electrode being passed with difficulty. She was unable to get home. Following two more treatments she had a profuse and painful period. Resuming with 70 mil., her period on June 29 lasted but four days. No clots and but little pain. During July 80 mil. was given per seance. July 27 period lasted but two days, painless. August 7, uterus in good position, but slightly anteverted, and only 3 and one-half inches in depth. 100 mil. dose was reached by August 21, when there was a marked improvement in every way. The enlarged fundus was diminished, the lump in the cul-de-sac was no larger than a marble. With occasional further treatment she improved for two years, when she became pregnant, and after a normal labor, died during the puerperum, from some cause not known to the writer.

Pain and hemorrhage are the two great symptoms which bring these uterine patients to the physician. Happily, in controlling them, even when applied empirically, before a complete diagnosis can be made, the polar effects of the current employed are each—positive and negative—most harmoniously related to the pathological indications for treatment. In fact, in expert hands, safety is assured, and the chemical action of the pole which controls the dominating symptom is, in most cases, found also to be the pole adapted to the treatment of the cause.

I will cite but one more case which, however, is remarkable in several ways: January 17, 1894, Mrs. —, age 26, married six years; no children; menstruated at 13. Regular until two months ago; then noticed a continuous show of blood, increasing during the last fortnight into decided hemorrhage, with severe backache. She presented the appearance of grave disease and advanced age; was in a state of complete mental and physical prostration, crying and frightened, and as hyperesthetic as if she was in the agonies of acute strychnine poisoning. She had just been bluntly told by a doctor on whom she called that "she had a

cancer, and unless she had it cut out at once she would not be alive in three weeks." The horrible information threw her into a state of collapse, and an examination was out of the question. Fortunately, the tonic and sedative influence of static electricity may be availed of without touching the patient or removing any garments. After a soothing application and encouraging advice, she went home free from pain, slept restfully and regained composure. An internal examination was purposely avoided, while she was diverted from thoughts of cancer and told that it would be time enough in a month or so to find out what was the matter with her. Bovinine was added to her nourishment, and her electrical treatment directed to relieving the backache, improving nutrition and nerve tone and reducing the hemorrhage. Daily static electrization was given for fifteen minutes, and percutaneous, lumbo-abdominal applications of 20 to 40 mil. constant current were administered by my able associate, Dr. Fannie W. Oakey, who assumed charge of the case. On the fifth day the hemorrhage was entirely under control, the backache had yielded, as backaches always do, to the mild static spark, and, although an alarm of fire occurred in her home on the 23d, and caused a temporary aggravation of symptoms, she made such steady progress as to raise her hopes that the idea of cancer was a mis-

take. January 29, record reads: "No oozing; has slight backache late in evening if fatigued during the day, but it leaves on going to bed; all other symptoms are removed; she sleeps well and feels fine." On the 31st she had some uterine oozing of blood for a single day. February 15, after 11 treatments since January 22 (sixteen in all), she became unwell. On the 19th she reported: "Menses about normal this time; best period in four months; three days regular flow, drying up naturally on the fourth day. Had some pain, but have always had it when menstruating." Five more treatments carried her up to March 7, when color had returned to her face, and she felt and seemed, to all appearances, in good condition to be examined and know the worst. A microscopic examination confirmed a diagnosis of epithelioma of the cervix. Her husband was at once informed of the diagnosis and advised to arrange an early operation, and electrical treatment was stopped. I never saw her again. The operation, performed in one of the hospitals of New York, proved fatal. Under the circumstances of her peculiar case, I do not know what other agencies could have been employed to equal the comfort or surpass the benefit she derived from the application of electricity, by only general methods, during the month which prepared her so well for—death.

865 Union Street, Brooklyn, N. Y.



Book Reviews.

THE PRINCIPLES AND PRACTICE OF BANDAGING. By Gwilym G. Davis, M. D. Published by George S. Davis, Detroit. \$3.00.

The bandage in surgery is a power for good, or evil, according to the skill of the operator, as shown in its application. Properly used, and applied, it works only good, but if applied carelessly it may cost the limb, or, perhaps, the life of the unfortunate subject. Aside from this, it frequently becomes a criterion in the eyes of the patient and his friends of the skill and dexterity of his surgeon.

The title of the volume under review states the scope of the work. In it the principles of the art are clearly enunciated, and the objects to be attained by its practice are also stated. The practical part predominates as it should do. The various bandages, the "roller," "tailed or sling," and the "handkerchief" varieties, with their subdivisions, are thoroughly described and illustrated in outline, by an abundance of cuts from drawings, or photographs, thus insuring an accuracy which renders the understanding of their application easy. Several of the bandages were invented by Dr. Davis. The book consists of 61 pages of fine letter press, filled to the covers with information valuable not only to the student and young practitioner, but also to the older members of the profession, by calling to mind many useful applications of this remedial means, which are too apt to be forgotten. It is sufficient, to say further, that the work is complete; the directions plain; the style finished; and we can confidently recommend the work as being so far the best on the subject brought to our notice.

E. W. B.

AMERICAN MEDICAL REVIEW.

A monthly review of current medical literature. R. N. Plummer Co., New York, publishers. \$1 a year.

This is another medical journal which has just been launched for professional favor. There are some interesting features about it as a review magazine. It condenses some articles from a few of the medical journals. The most important feature in the first number is the medical index, giving a sort of directory index of the original articles of the various medical journals of this country. This it is the intention of the publishers to keep up and may prove a valuable aid to its exchanges and those of the profession who desire to be kept informed of new articles. We wish the enterprise abundant success.

The January Forum will contain an interesting article on the bicycle, with especial reference to its use by women, by Dr. Henry J. Garrigues, a leading physician of New York.

The College and Clinical Record will be hereafter known under the name of Dunglison's College and Clinical Record; a monthly journal of practical medicine.

LITERATURE FOR MEDICAL STUDENTS.

No one disputes, least of all those engaged in teaching, that the literature commended for the use of the medical student forms an important factor in his comprehension of the various aspects of his special field of biology.

Even regarded as mere adjunctives to didactic and laboratory teaching, books are of the first importance to him in his studies.

The conceptions formed by him of

many subjects are due, and due alone, to the lucidity of the writer he follows.

That all writers, even those of magnificent ability, have not the power of clear and logical exposition, is unfortunately evidenced in many treatises upon medicine, and its collateral sciences. Many of the works quoted and most esteemed by the medical fraternity, invaluable as they are, do not fill the needs of the college student. They assume a more intimate knowledge of the data of the collateral sciences not possessed as a rule by the undergraduate.

In all literature, perhaps, the best expositors are the English; certainly, the history of every aspect of English literature when compared with that of other peoples and other languages will bear out this opinion. Still, it is but a matter of opinion. It may be simply one aspect of the personal equation, but the writer has found, as a rule, the elementary text books written by English scientists were those presenting the subject matter in the clearest light, and in the manner of a gradual unfolding to the uninitiated. The writer recalls with pleasure the great benefit derived from a use of one series of

manuals, while an undergraduate; these were, or are, called "A Series of Students' Manuals," written by English medical men and published by Lea Bros.

It is a matter of surprise to find how few students are familiar with these manuals.

They are not by any means "quiz books," that class of publication representing merely a printed note-book, but are treatises, in which the subject general of some one branch of medicine is boiled down, leaving the essentials, and these presented in such a manner as to be easily comprehensible to students.

Two in particular of this series, a little book by Pepper, on "Surgical Pathology," and one on comparative anatomy, of Bell, might well serve as patterns for more pretentious volumes.

They are good literature, and most excellent scientific treatises, and will give students a circular comprehension of the subjects discussed.

The writer now gives these books a place on the shelves beside treatises many times their size, and they only suffer in comparison by size, not by worth of contents.

Henry H. Burchard.



Current Medical Literature.

A CASE OF PHTHISIS APPARENTLY CURED.

BY WILLIAM PEPPER, M.D., LL.D.

The patient was a woman, 21 years old, with all the symptoms of phthisis, including tubercle bacilli in sputum. The patient was placed upon a diet of egg-albumen, which seemed to agree with her stomach better than any other food, and this diet was forced so that she consumed daily the albumen of two dozen eggs. The medical treatment consisted of 1-100 of a grain of strychnine nitrate, with 1-1000 of a grain of atropine sulphate, every two hours hypodermatically, and 1-50 of a grain of strychnine nitrate with 1-12 of a grain of the double chloride of gold and sodium, and half of a grain of a vegetable digestive every two hours by mouth. After a few days the amount of gold and sodium was increased to one-eighth of a grain every two hours. She was given cod liver oil inunctions and general massage with passive movements once daily. At first she showed signs of strychnine intoxication, and the dose was reduced, but she soon resumed the original dose, and after the first two weeks she bore the drug well, although always just inside the border line of its toxic action. During April she improved decidedly; she regained flesh, the fever became less marked, the night sweats less profuse, the cough was allayed and the expectoration much reduced, though still rich in bacilli. During May the improvement was very rapid. By the latter part of the month she had recovered her normal weight, 125 pounds. The fever and night sweats had disappeared, the appetite was good and the digestion normal, the cough was almost gone and tubercle bacilli had

disappeared from the sputum, which was still expectorated in very slight amount. All signs of consolidation in the right apex and base of the left lung had disappeared, the only remaining sign was slightly harsh breathing at those sites. She was instructed to continue her general treatment, to return to a normal diet, to practice forced, deep breathing and graduated exercises, and was sent to the mountains. In September she returned to the city in perfect health. Her weight was 132 pounds; she was robust and muscular, with better chest expansion than she had ever possessed before in her life. There was no cough or expectoration, the lungs were in all respects entirely normal, except for a patch of emphysematous breathing in the base of the left lung. She re-entered upon her social duties and has since led a busy life. Her health continued perfect until early in August, 1895, when she had a slight attack of pneumonia, involving the base of the left lung. The sputum was sparse, resembled prune juice, and was crowded with pneumococci and tubercle bacilli. The attack ended by crisis on the eighth day, and a few days later she was again sent to the mountains. She returned in ten days with a recurrence of all the symptoms of the attack of two years previous. Her weight had fallen to 114 pounds, there were anorexia, fever, cough and free expectoration, which was full of tubercle bacilli. In the base of the left lung was consolidation with moist rales. She was placed on the same treatment given her during the first attack and she rapidly regained flesh and strength. On November 1 her weight was again up to 124 pounds, all fever was gone, the cough and expectoration had almost disappeared. Tubercle bacilli were not to

be found since the last week in October. The consolidation had become greatly reduced, but was still present, when a few days later she was again sent to the mountains.

Noteworthy points in this case are: The sudden onset, quite like general miliary tuberculosis; the large number of bacilli; the rapid recovery, all the more remarkable with a pronounced tubercular family history; the complete disappearance of consolidation and bacilli; the acute reappearance after two years of the whole train of symptoms, with signs in the base of the left lung directly following an attack of pneumonia located in that vulnerable part; the large number of bacilli and their early complete disappearance in the second attack; the abatement of the consolidating process and rapid recovery of the general health after the second attack; the absence from the treatment of all cough-medication and antiseptics, and the large doses of strychnine nitrate and the double chloride of gold and sodium, with which the system was kept literally saturated.—University Medical Magazine.

REMARKS ON THE EMPLOYMENT OF LIQUID VASELINE IN THE TREATMENT OF AFFECTIONS OF THE MIDDLE EAR.

Dr. Delstouche, Brussels.

Since employing this in acute cases he had become less and less in a hurry to perform paracentesis. Prof. Habermann had taken up the method, employing up to fifty centigrammes at a time. Out of thirty cases this otologist had noted great improvement in twenty-two, tinnitus relieved in eighteen, vertigo much diminished in nine. The treatment was indicated in serous, not in sclerotic, catarrh. He quoted Politzer as considering massive injections of vaseline quite innocuous. He introduced the liquid vaseline through a catheter by means of a well-fitting syringe, and followed this up by an air-douche. The vaseline had to be chemically pure or sterilized by boiling. He did

not consider the addition of iodoform necessary, but when added there was no need for it to be dissolved in ether. To objectors he stated that it had been proved that liquids could be driven into the tympanum (without counter-opening) if they were mixed with air.

Dr. Sune y Molist, Barcelona, valued the method highly.

Dr. Secretan, Lausanne, thought the quantity of fluid injected should be very limited.

Dr. Dundas Grant, London, said he had found the method surprisingly beneficial, as had also his fellow-countryman, Dr. Adolph Bronner. Dr. Grant employed it in the manner described by Dr. Delstanche—went still further in driving it into the tympanum through a Weber-Liel's intra-tympanic catheter so as forcibly to break down certain adhesions. As regards so-called sclerosis of the middle ear as a contra-indication, there were certain cases in which the diagnosis of sclerotic otitis was perfectly clear and the patient should be spared all treatment, and there were others of equally unmistakable exudative otitis in which active treatment was imperatively called for.—Journal of Laryngology, Nov. 1, 1895.

"ON APOLYSIN AND CITROPHEN, WITH REMARKS ON THE PRACTICAL USEFULNESS OF THE PHENETIDIN DERIVATIVES.

From the Centralblatt für Innere Medizin, November 9, 1895. By Dr. Hildebrande, of Elberfeld.

Under the names of Apolysin and Citrophen, two combinations of phenetidin with citric acid have lately been clinically experimented with, and recommended. They differ chemically from one another in this, that in Apolysin one molecule of phenetidin is combined with one molecule of citric acid, with the production of water, whilst in Citrophen, on the other hand, three molecules of phenetidin are combined with one of citric acid, and without the production of water. The relation of Citrophen to Apolysin is, therefore, like

that of the lactate of parphenetidin to lactophenin. And this difference in chemical constitution determines the different physiological action of these two bodies.

My own experiments on rabbits lead me to coincide fully with the conclusions of Dr. G. Treupel (*Deutsche Med. Wochenschrift*, 1895, No. 31). I agree with him in his emphatic warning against the unlimited use of citrophen, which is identical with the ordinary citrate of phenetidin.

Apolysin has been recommended, on the one hand, as a more reliable and more rapid antipyretic and analgesic than phenacetin. In point of fact, its poisonousness even when given by subcutaneous injection is much less than that of phenacetin. Even 8 cg. (1 1-4 grains) was well borne subcutaneously by white mice; there was no reaction; whilst even 3 cg. (2-5 grain) of phenacetin was sufficient to call forth the characteristic phenetidin effects.

These experiments demonstrate the innocuousness of even large doses of Apolysin when given subcutaneously, where, of course, the product reaches the alkaline tissue fluids immediately. Its ready decomposition in the gastric juice seems to have led its first advocates to claim that its exhibition was contra-indicated when the stomach was empty, or when there was hyper-secretion. This contra-indication need not be heeded, if, instead of the strongly acid Apolysin powder, the Apolysin tablets are employed. These are composed of one part of bicarbonate of soda and two parts of Apolysin, and they dissolve in water with effervescence. The solution tastes of bicarbonate of soda, and does not react sour, like Apolysin, but slightly alkaline.

The proportions of solubility of the three phenetidin compounds are as follows:

One part of Apolysin requires for its solution 55 parts cold water and less than 1 part boiling water.

One part phenacetin requires for its solution 1400 parts cold water and 80 parts boiling water.

One part lactophenin requires for its solution 330 parts cold water and 55 parts boiling water.

THE RED BLOOD CORPUSCLE IN LEGAL MEDICINE.

M. C. White (*Medico-Legal Journal*, vol. xii, No. 4), in a very careful paper on the measurements of red blood corpuscles in man and in the lower animals both in the fresh state and when recovered from a clot, concludes (1) that in favorable cases blood stains can be so treated that reliable measurements and credible diagnosis of their origin can be given. (2) That if error occurs on account of imperfect restoration of the form and diameter of the corpuscles obtained from a stain proved by the guaiacum test, the spectroscope and the production of hemin crystals to be blood, the error, if any, will be to make human blood appear like that of one of the inferior animals, and never to mistake the blood of the ox, pig, horse, sheep or goat for human blood. (3) That in general when a stain has been proved to be blood by the above tests, it may be decided certainly whether it is or is not mammalian blood. So also a stain from the blood of the ox, pig, horse, sheep and goat may be distinguished from human blood, thus confirming the claim of an accused person in many cases that his clothes are not stained with human blood. Lastly, the expert can say when the average of a suitable number of corpuscles from a blood stain corresponds with the average of fresh human corpuscles, that the stain is certainly not from the blood of the ox, pig, sheep or goat; and in other cases he can say with great certainty that a given stain is not human blood.



German and Italian

Translated by DR. F. E. CHANDLER.

SERUM TREATMENT OF ERYSIPELAS.

Kopfstein (Wiener Klin., Rundschau, Nos. 33 and 34) gives the results of his experiments with the serum of erysipelas on malignant tumors, and comes to the conclusion that the action of the serum is purely local, the only change being in the immediate vicinity of the new growths.

Even if a diminution in the size of the tumor takes place, no hope of a permanent cure can be based on that fact. He confirms the opinion of Burns, who affirms that this new method of treatment has not advanced in the slightest degree the non-operative treatment of malignant growths.

CAUSES OF CIRRHOSIS OF THE LIVER.

Dr. P. Krawkow (Vratsch, No. 41) says: It is a well-known fact that up to the present time alcohol has been considered as the predominant factor in the etiology of cirrhosis of the liver, but this disease may be due to other causes as well. We need only to mention syphilitic, tubercular, gouty, infectious, diabetic cirrhosis, etc., yet, according to the opinions of most clinicians, these causes play but a secondary role to the great etiological factor, alcohol.

Can this opinion hold its own before the facts of experimental pathology? It is more than doubtful. Numerous experiments made by Strassman, Athanassieff, Kolden, Pohl and others upon animals have by no means shown that alcohol plays an important role in the production of hepatic cirrhosis. These negative results have awakened doubts in the minds of many as to the influence

of alcohol in these cases. The use of alcohol, however, is so universal that we need not be surprised to find alcoholism in the anamnesis of most cirrhotics.

Dr. Khabanoff has very justly observed that it would be just as sensible to have alcoholism occupy the principal place in the anamnesis of all other diseases.

Latterly attempts have been made to resolve the problem of cirrhosis by bacteriological research. The work done as yet, although not productive of definite results, seems to indicate that the experimenters are on the right track.

In studying the development of the amyloids in animals under the influence of chronic intoxication by different microbes, the author has noticed alterations in the liver, which commenced by a slight diffusion of the cellular tissue and finished by producing a compact connective tissue. He has likewise proved that different microbes produce different degrees of cirrhosis, and that this makes its appearance at different intervals after the microbial infection.

Cirrhotic change of the liver may also be produced by prolonged oral administration of microbial poisons.

Experience has also shown that this disease may develop under the influence of weakening causes, such as intestinal catarrh, etc. Alcohol, according to K., only acts as an enfeebling agent, and predisposes indirectly to cirrhosis.

TREATMENT OF CHRONIC CONSTIPATION.

Dr. J. Schrieber (Wiener Med. Presse, Nos. 21 and 22) calls attention to the great change which has taken place in the treatment of chronic constipation during the last decade. S

has given his attention to the mechanical treatment of this trouble, and has succeeded in curing 90 per cent. of his cases where formerly he had been able to effect a cure in less than 10 per cent.

His treatment requires a duration of from six weeks to three months, and consists in systematic massage of the large intestine for 8 to 10 minutes daily. Considerable force is employed and the friction and pressure are directed by anatomical considerations. The cure is helped by light gymnastics, and, if absolutely necessary, mild purgatives may be employed. The diet must be carefully regulated.

Before commencing massage the absence of floating kidneys and of internal or ovarian troubles must be confirmed.

S. distinguishes four forms of chronic constipation: First, in young, vigorous and otherwise healthy persons, where it is due to hereditary predisposition, to a sedentary life or to an indeterminate cause; second, when it results from digestive troubles; third, in neurasthenic or anemic patients; fourth, in the corpulent.

Massage, according to S., seems to be equally efficacious in all cases and worthy of a trial.

HYPERTROPHIED PROSTATE.

Professor Chalot (Independence Medicale, No. 1) proposes to preserve the testicles in operating for hypertrophied prostate whether they will be of any ulterior use or not, and says: "I propose to excise between ligatures the vas deferens of one side, if the hypertrophy of the prostate is clearly unilateral, or of both sides if the disease is median or general."

C. operated thus on a man of 64 years, who made a perfect recovery, and, not knowing what had been done, was in good mental condition. His mistress said that he had as frequent and complete erections and demanded sexual connection after the operation, the same as before.

STEAM AS A HEMOSTATIC.

Sneguirieff (Berliner Clinic, No. 4) records a case of enucleation of a hy-

atid cyst of the spleen where he made use of superheated steam, throwing a jet of it on the large end of the tumor. Then he made a cut seven inches long, and laid bare the tumor. There was no hemorrhage. The deep hemorrhage which came on during the enucleation of the tumor was stopped short by a jet of steam. In this manner, and without losing a drop of blood, he succeeded in enucleating the whole ruptured echinococcus sac.

USES OF TURPENTINE SUBCUTANEOUSLY.

Dr. B. Nagy (Oroosi hetilap, No. 9) has tried subcutaneous injections of essence of turpentine in the three following cases. The temperature was elevated to 39 C.

1. A woman affected off and on for fifteen years with maniacal excitement. The day after injection of 0.5 gm. the mental state became normal and remained so up to the end of her stay. The artificial fever lasted four to five days.

2. A woman taken for the first time with mental confusion and depression. Subcutaneous injection of 0.25 gm. The next day the patient had recovered her mental faculties.

3. A woman taken with mental confusion of hysterical origin. Injection followed by amelioration. Relapse two weeks later.

TREATMENT OF WHOOPING-COUGH.

Dr. Stooss, of Berne, has used in the last four years only bromoform and antispasmine in the treatment of whooping-cough. His results are very satisfactory.

Bromoform causes in most cases a very marked diminution in the frequency and intensity of the attacks, but cannot positively be said to shorten the duration of the malady.

In children of one year and less Dr. S. uses antispasmine (a mixture of sodic narceine and salicylate of soda) on account of the narcotic effect which bromoform sometimes produces on the little patients.

Its action is the same as bromoform, and is well taken by infants of but a few months old.

Dose for children under one year, 0.01 to 0.015 gm., three or four times daily. It is usually administered in a 0.2 per cent. solution, and parents are recommended to give the medi-

cine immediately after a coughing spell.

Antispasmine has also been found of great use in the atrocious cough of children suffering from measles.



AN ATTEMPT TO MODIFY THE OSTEPLASTIC OPERATION OF THE KNEE-JOINT.

S. Delizin, Wratch. No. 24.

Author modified Gabansen's method and operated as follows: Forming the anterior flap by a downwards semilunar cut, commencing from the most prominent condyle of the femur. The muscles lying between the tibia and fibula—tibialis and extensor dig. communis—are severed in an oblique direction. The head of the fibula and the epiphysis of the tibia are sawed off, in the direction from below, upwards and from the front posteriorly. The sawed off pieces are placed anteriorly on the top, the posterior joint capsule is cut open with scalpel, as well as the big cruciata and the side supporting bands between the upper and lower parts of the joint. Now the lower anterior portion of the condyles of the femur is sawed off from anterior posteriorly in an oblique direction, so that this portion with that sawed off from the tibia will form a right angle. In this way the parts are brought together; then the arterial vein and nerve are ligated in the knee hollow, the amputation ended, the posterior short skin muscle flap smoothed, the bone ends held together by silk or metallic suture and the skin wound sewed together to the posterior flap of the stump.

The preference in this method is the following:

1. The bone ends of the upper and lower bones are brought together, not in a straight line, but in an angle of 45 degrees.

2. With the exception of the epiphysis of the tibia, the head of the fibula remains, and with it the place of insertion of the biceps.

3. The ligation of the large vessels is not done at the beginning of the operation, but quite close at the end.

MALIGNANT NEOPLASMS.

Centralbl. f. Chirurgie, No. 20, 1895.

Dr. Kronacher, of Munich, calls attention to the observations that lupus and malignant neoplasms of various kinds are influenced to a certain extent by acute inflammations in their periphery, as for example erysipelas. An arrest occurs in their growth, and in some cases of lupus a cure is effected. For these reasons attempts have been made to treat these tumors by inoculation of erysipelas cocci or of bacterial toxins. It is as yet undecided whether bacteria and their poisonous products or whether the inflammation set up is responsible for the favorable influence upon the neoplasm. To settle this question Kronacher has produced aseptic suppuration in the vicinity of inoperable carcinomata by means of injections of pure oil of turpentine, and obtained noteworthy changes in the new growth, which he intends to describe in a later communication.

Current Surgical Literature.

T H MANLEY, M. D., New York, Editor

TREATMENT OF HEMORRHOIDS.

Allg. Med. Centr. Ztg.

Dr. Schmey recommends a simple means of treating hemorrhoids which he has successfully employed in a number of cases, three of which are reported in detail. It consists in painting the nodules once daily with a two per cent. solution of nitrate of silver, which causes a gradual reduction in size without the least pain. In the cases reported the tumors had entirely disappeared in the course of one or two weeks. As there are many patients who positively refuse operative treatment this new procedure is well worthy of attention.

THE SURGICAL ASPECT OF TUBERCULOSIS.

Med and Surg. Reporter, Nov. 28, 1895.

Less than fifty years ago scrofula was a vague condition, which the surgeon treated by laying on iodine with a paint brush, much as kings, in the previous centuries, had laid their hands on the afflicted ones. By degrees the subject became more clearly understood, until Koch demonstrated the bacillus, and tuberculosis took the place of older term. Tuberculosis may now be defined to mean an infective disease in which the tissue changes are due to the action of a specific micro-organism, the tubercle bacillus. These changes are those of a low and usually chronic type, the inflammatory process feeble and insidious, and there is little tendency to produce a defensive barrier which will isolate the infected region. The use of the term neoplasm, in regard to tuberculosis, is fallacious. Caseation, a process of necrosis and fatty degeneration, is so common as to be almost characteristic. Caseous matter is not deposited, in the

usual pathological sense, simply a mass of dead material comparable to the sequestrum of necrosis of bone (not inspissated pus), and is incapable of so active a process as pus formation. Suppuration, to rid the body of the noxious mass, is often excited in the tissues around it, though it does not involve suppuration of necessity, as it may become inspissated, calcareous or encysted. It is as desirable to remove a caseous mass as a piece of necrosed bone, although in regard to the tubercular lesion the proposition is modified by many circumstances.

To set in action the tuberculous process there must be present the seed (tubercle bacillus), and a suitable soil. It is evident the soil is of the more importance, as in the haunts of men this bacillus is liberally distributed, and the non-tuberculous individual is one in whose tissues this cannot obtain a hold.

The first elements in treatment are plenty of air, plenty of sunshine, and plenty of good food. Patients do not do well in densely wooded districts, in valleys, by the banks of large rivers and in moist places. They do better by the sea, in districts with low rainfall, with a porous soil, sparse vegetation, and an unimpeded rush of air from the sea. In England there is some difficulty in spending much time in the open air in winter, although I have had patients with high temperatures and suppurating wounds, with acute joint mischief and psoas abscesses out of doors every day in the winter, in spite of snow, frost and rain.

From not treating tubercular inflammations at all, the extreme of treating them too much was reached, but the mean has probably now been reached.

In treating tubercular joints it is

no longer customary to force the limb into a stereotyped strained position, but to place it gently at complete rest, and keep it there. By this treatment the joints generally get well.

In the treatment of gland disease it is essential, in the first place, that the periphery be examined and any exciting cause dealt with, and secondly, the part must be kept at rest. This detail must be observed as much when the neck is under treatment as the axilla or groin. Frequently, of course, it is necessary to remove the glands, but by no means in every case. In tuberculous testes the modern treatment is to open and curette the epididymis as soon as softening is found, and to pack with iodoform gauze. Repetition may be necessary, but the result is usually a success.

LUMBAR PUNCTURE.

(From International Journal of Surgery.)

The procedure of spinal puncture which was first recommended by Quincke, more than four years ago, has recently attracted considerable attention as a means of diagnosis and treatment in certain diseases of the brain, although it has not been utilized to any extent in this country. This method, which is based upon the existence of a communication between the subarachnoid space and the ventricles of the brain, consists in the tapping of the vertebral canal with a fine aspirating needle or the needle of a large hypodermic syringe in the lumbar region between the second and fifth lumbar vertebra. It is still a matter of question whether this method is chiefly of diagnostic or therapeutic value. According to Furbringer, it is especially valuable for diagnostic purposes, enabling the physician to differentiate between tubercular meningitis and the serous and purulent forms of the disease. In 80 per cent. of the 37 cases observed by Furbringer the diagnosis of tubercular meningitis was confirmed by the detection of tubercle bacilli in the fluid evacuated by puncture. Ewald, Naunyn, Heubner, Freyhan and Senator have also directed attention to the diagnostic importance of lumbar puncture. Aside from the

presence of tubercle bacilli, the occurrence of pus, blood, or even of an excessive amount of albumin may also be of some diagnostic significance. It has been emphasized by Lichtheim that in doubtful cases the presence of purulent meningitis may be positively demonstrated by the existence of pus in the fluid withdrawn. From a practical standpoint this may be of importance in operations for cerebral abscess or sinus thrombosis, by showing whether or not the primary disease is complicated by a purulent meningitis.

THE SYMPTOMS AND TREATMENT OF VARIOUS TYPES OF APPENDICITIS.

Abstracted from the Medical and Surgical Reporter.

BY THOMAS H. MANLEY, M. D.,
NEW YORK.

Perforative appendicitis, with purulent and feculent infection of the cavity of the peritoneum, depending on primary and immediate connection between the lumen of the appendix and the serous space, or the consecutive bursting of an encysted perityphlitic abscess, is the gravest form of appendicitis, or perityphlitis, and all accord that without the aid of surgery death is inevitable. It may, moreover, be added that even under the most favorable auspices the operative mortality is large.

The conditions which confront us and the signs of profound constitutional disturbance warn us that death is not far off. Often the question which is forced on us is not how shall we operate, but rather shall we hazard any radical measure.

Our patient's general condition is such as to contra-indicate any protracted operation, which the one to be undertaken always is; therefore, our only justification for it is that it is the only possible alternative, however doubtful may be its results.

Formidable difficulties lie in the way of the operator. We can all appreciate the importance, in this desperate class, of rapid operating, of reducing the anesthesia, and of completing our manipulations within the peritoneum in the briefest period of time.

Pathologic changes have produced extensive derangement of the normal anatomical relations and an operator must now depend on his experience and practical acquaintance with this peculiar and unusual type, rather than on his knowledge of the healthy structures.

Under all circumstances, we should insist that the operation be thorough and complete, unless serious symptoms suddenly develop.

A large incision will hardly do here, else we will almost inevitably invite an extension of intestine to embarrass us. As in operating for chronic appendicitis, our incision should be to the outer side of the linea semi-lunaris. We are compelled to depend in a large measure on the sense of touch to detect the appendix in the tympanitic abdomen. With the finger passed through the incision, we grope for the appendix and for pus accumulations. If the perforated or gangrenous appendix comes up into the wound, we may quickly deal with it. But in not a few instances such profound collapse sets in after the peritoneum is opened that we may not tarry to find the appendix, but must hurriedly bring the operation to a close, however incomplete it may be.

It may, perhaps, seem like supererogation to inquire if at this stage we should flush the peritoneal cavity with antiseptics or sterilized fluids, or whether we should depend entirely on drainage?

Antiseptics have long since been cast aside in peritoneal surgery. It is well to know that warm water will not wash away pus from serous surfaces. My own experience has rather inclined me to discard flushing in all these cases unless the quantity of foul material is excessive. Having cleared the peritoneal cavity of all foreign material and left an ample vent for the residue, we have done quite enough; besides, we have greatly reduced the time, so dangerous an element in these cases.

HOSPITAL OR HOME TREATMENT.

It does not appear that anyone has yet attempted to determine the rela-

tive frequency of this disease in the various classes of society. It seems to prevail, however, with equal frequency among all, without regard to social caste. Evidently, then, we must be prepared to treat it among the middle and lower classes more frequently than among the wealthy, for, in numbers, they predominate.

Can operative cases be managed at home equally as successfully as in a hospital?

It is my conviction that they can be, and even more so. This is no novel or theoretical notion of mine, for I have formally taken this ground in the Academy of Medicine, and have statistics to support the statement.

For the mechanical part of the treatment, with a large staff of assistants and nurses, besides an abundance of instruments, it at first seems that a hospital equipment gives better guarantee of results than could be provided at one's own home, but, like a great many theories, strong from the speculative side, this one is delusive in practice.

To begin with, to move a patient in an advanced stage of appendicitis out of his bed exposes him to draughts, and the jolting consequent to transport to hospital adds fresh danger and diminishes the prospects of recovery. No hospital constructed *can*, or ever will, provide the sympathetic, unremitting attention of a well-kept home. Too many assistants only stand in one another's way. Of instruments, it may be said, the fewer the better; what only is needed is skill and discretion in the use of them.

Of late years the too general practice of sending these cases to hospitals has operated to the disadvantage of the patient and has tended practically to remove from one's clientele many cases of unusual interest and profit. Surgeons give their services to our hospitals without compensation, and why should they not also, among the poor and worthy outside, on the representation of the family physician, occasionally gratuitously perform an operation, or so scale their fees that those in moderate circumstances may employ them

to operate, the further conduct of the case being in charge of the family physician?

The loud and general complaint now among practitioners is over an

excess of hospitals and their abuses, for which they themselves are largely responsible, and which if remedied the work of reform must commence with themselves.

Current Literature in Obstetrics and Gynecology.

NEW AND SPEEDY METHOD OF DILATING A RIGID OS IN PARTURITION.

At a meeting of the Obstetrical Society of London, Dr. Farrar (Gainsborough) gave the details of two cases in which he had used a ten per cent. solution of cocaine as an application to the rigid os. In one case he had applied the cocaine after endeavoring vainly to relax the cervix by means of chloral, bromide of potassium and morphia, and the most persistent attempts at digital and mechanical dilatation, with and without chloroform. He decided upon incising the os, and used the cocaine to this end. After five minutes he introduced the finger as a guide to the scissors, and, to his surprise, found the os widely dilated. In the second case, a primipara, forty-eight years of age, he used every effort, as before, to produce relaxation, and waited three days before making the application of cocaine, which was immediately successful. In four minutes the os had yielded. He considered the dilatation to be due to the cocaine in both cases. Dr. Armand Routh said that Dr. Dibbs, of Shan-kin, had recommended cocaine as relieving the pains of the first stage of labor, and that Mr. Head Moore advised cocaine and boric acid pessaries in cases of rigid os. He himself had found it useful. The president, Dr. G. E. Herman, said that two cases were rather a slender foundation upon which to base a conclusion, but if Dr. Farrar's results were confirmed by further experience, he would have made a valuable addition to our obstetric resources.

—The Lancet.

IMPROVEMENT OF THE PHYSIQUE BEFORE BIRTH.

At a recent meeting of the Paris Academy of Medicine, a report of which is published in the *Journal des Praticiens* for November 30, M. Pinard spoke on what he called "intra-uterine puericulture." He stated that the care and medical treatment given to abandoned women who were received into the special establishments known as refuges for pregnant women had led to the disappearance of the majority of grave symptoms formerly observed in those who applied for medical treatment. During his service in one of these establishments he had noticed that the majority of the children born to women who had lived in the refuge during their pregnancy were remarkable for their development.

M. Pinard has made a comparison of the weight of the children of these women with that of the children of women who had continued to work up to the time of their confinement, and has obtained the following results: The average weight of the children of five hundred women who had continued working was six pounds; that of the children of the women who had been in the refuge for at least ten days was six pounds and a half, while that of the children of the women who had lived in the refuge during their pregnancy was 8 pounds.

M. Tarnier was cited by M. Pinard as having observed the following results at the Maternite during a period of sixteen years: Among the children of primiparae the average weight of 3794 boys was six pounds and a half, and that of 3159 girls six

pounds and a quarter; in the children of multiparae the average weight of 4623 boys was eight pounds and a half, and that of 4025 girls seven pounds.

M. Pinard has also made a comparison of the duration of pregnancy in the women who had sought medical care and treatment in the refuges with that of the women who had not been taken care of, by estimating the lapse of time between the last period of menstruation and confinement, and he has arrived at the following results: Among 1000 women who had worked up to the time of their confinement, 280 days had elapsed in 482 cases, from 270 to 280 days in 279 cases, and less than 270 days in 239 cases. In 1000 women who had lived in the refuge during their pregnancy, 280 days or more had elapsed in 660 cases, from 270 to 280 days in 214 cases, and less than 270 days in 126 cases.

We know, says M. Pinard, what is to be done in order that the period of gestation may not be interfered with, so that the development of the child may be as complete as possible, for premature birth is not to be regarded with indifference. The foregoing figures, he said, spoke for themselves, and also showed what we had to do for the development of a strong population.

It seems that the first of these refuges was established by private munificence, and that shortly afterward the city of Paris opened one of like character, the Michelet Asylum. M. Pinard seems to have shown good reasons for hoping that they may be multiplied.

N. Y. Med. Journal.

RAPID DILATATION OF THE OS DURING LABOR.

Demelin (Rev. Obstet. Inter., November 11, 1895) has found this proceeding necessary in many cases. In the interests of the mother he has dilated the os for eclampsia in two cases; faulty insertion of placenta, 5 cases; cardiac asphyxia, 1 case, and apoplexy, 1 case. In order to save the child he has dilated the os for lingering labor in five cases; rigidity of the cervix, 3 cases; shoulder presentation, 3 cases; face presentation, 1

case; compression of the funis in vertex presentation, 4 cases; prolapse of the funis in 3 cases, and amniotic infection in 2 cases. In this last class the infection of the waters, especially when the membranes have ruptured early, is serious for the mother, but especially grave for the child. In order to save it from pneumonia or infectious enteritis which come on soon after birth, it must be removed as quickly as possible from its poisonous surroundings. In eclampsia rapid dilatation is indicated, and it speedily terminates a perilous delivery without in itself increasing the number of convulsions. Demelin maintains that rapid delivery is quite the order of the day, the old prejudice having passed away. In the circumstances given in detail above it is dangerous to wait for complete spontaneous dilatation. On the other hand Demelin admits that the practice is likely to be abused.

—British Medical Journal.

SEPSIS DURING PREGNANCY.

Bar and Renon (Repert. Universel d'Obstet. et de Gynec., September 25, 1895) read at the recent congress at Bordeaux a clinical report of a case of "streptococcism" in pregnancy. A woman was admitted into hospital suffering from high fever. She was about eight months pregnant, and occasional pains set in. Some cervical secretion was removed for examination before any obstetrical manipulations. Cultivations proved that the secretion contained streptococcus. As the patient was very ill labor was hastened. Specimens of placental maternal blood were cultivated, and colonies of pure streptococci were obtained. The child died before birth; samples of its blood from the placenta, liver and heart, and fragments of the liver and lungs were cultivated. The cultures remained sterile. The mother died 53 hours after delivery, and pus was found in the parametrium. Bar and Renon maintain that the "streptococcism" provoked labor. Though the fetus succumbed, there is no evidence that the germs invaded the fetal organism through the placenta.—British Medical Journal.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

- ABRIN.**—Brownish yellow powder, soluble in water. Fatal dose one one hundredth of a grain. For producing artificial conjunctivitis in ophthalmology like the abrus precatorius, whence it is derived.
- ABSINTHIN.**—Brilliant, prismatic colorless, bitter crystals, soluble in A. C. E., slightly soluble in water. Digestive stimulant. Dose 1 to 2 grs. at meals.
- ACETAL** (diethyl-acetal, ethylidene diethyl ether).—Limpid liquid; sp. gr. at 22 degrees C. (71.6 F.), 0.821; soluble in 18 parts of water. Hypnotic narcotic. Dose 1 to 2 fl. drs.
- ACETANILID.** (Phenylacetamide, anti-febrin).—Fine white crystal. Max. single doses 15 grs., daily 60 grs. Antipyretic, analgesic. Anti-febrin, oz. 15; acetanilid, lb.
- ACETOPHENONE** (Phenylemethylketone hypnone).—Highly refractive, volatile, colorless liquid, with an odor resembling bitter almonds; disagreeable burning taste. Hypnotic anodyne. Dose 2 to 8 minims.
- ACETONE-RESORCIN.**—Combination of two molecules of resorcin with one of acetone. Small anhydrous prisms, soluble in alkalies, insoluble in W., A., E., C.; uses same as resorcin.
- ACID ANISIC.**—Colorless prisms, soluble in A., insoluble in water. Antiseptic, antipyretic (wounds or acute rheumatism). Dose, sodium salt 15 grains.
- ACID CAMPHORIS.**—Colorless, transparent; bitter crystals or plates. Soluble in A., E., oils, hot water, slightly in cold water. (Nasal ulcers, etc.) In douche, spray or paint, 1-2 to 2 per cent. solution. Antisudorific (night sweats). Dose, 12 grains every 4 hours, or 30 grains at night.
- ACID CATHARTIC.**—Brown hygroscopic scales. Soluble in water or dilute A. Laxative cathartic. Dose 4 to 6 grs.
- ACID CINNAMIC.** (Cinnamyllic).—White, odorless crystals. Soluble in A., E., hot water. Insoluble in cold water. Antitubercular. Intravenous dose, 1 to 5 grs. in 5 per cent. oily emulsion, with 0.7 per cent. solution of Na. Cl. Locally in lupus, etc., in 5 per cent. emulsion or solution with cocaine.
- ACID CRESOTIC.**—Three homologous acids occur in volatile, prismatic needles. Sodium salts only are used.
- ACID DITHIOSALICYLIC.**—Powerful antiseptic. The salts only of the two isomeric acids are used.
- ACID GLYCERIN-PHOSPHORIC.**—Glycerin ester of phosphoric acid. One of the principal components of lecithin, the most valuable phosphoric food constituent. Faintly yellow, odorless, oily liquid, soluble in water, A. For therapeutic uses, dose and price, see calcium glycerophosphate.
- ACID GYMNEMIC.**—Brown crystalline powder. Soluble in A., less so in water. Insoluble C. E., emetic. Dose 4 to 6 grs. To disguise bitter taste rinse the mouth with a 5 per cent. solution.
- ACID, GYNOCARDIC.**—Yellowish unctuous solid, of peculiar strong odor and burning, acrid taste. Used externally and internally like chaulmoogra oil in leprosy, syphilis, gout, rheumatism, etc. Dose, 1 to 3 grs. As a liniment in 10 to 50 per cent. oily solution.

ACID OSMIC. (Per-osmis, osmic anhydride.)—Lustrous orange, hygroscopic needles of suffocating and penetrating odor. Antiseptic discutient (when applied pure) anti-neuralgic (epilepsy, sciatica). Hypodermic injection, 7 to 15 minims of 1 per cent. solution several times daily. Dose, one-fiftieth gr. in pill three or four times daily.

ACID PHENYLACETIC. (Alphatoulic.)—Lustrous crystals. Soluble in A. E., hot water. Less soluble in cold water. Antiseptic, antitubercular. (Phthisis, typhoid fever, etc.) Dose, 1 to 3 grs. three times daily, in water.

ACID SALICYL-SULPHURIC. (Sulphosalicylic, salicylsulphonic.)—White crystals. Soluble W. A. Test for proteids, urine albumin, etc.

ACID SCLEROTIC. (Sclerotinic.)—Dragendorff's. Faintly acid, hygroscopic powder, odorless, tasteless. Soluble in water, difficulty in A. Substitute for ergot in epilepsy, inferior to E. in gynecology. Dose, one-half to 5 grs. per day.

ACID TRICHLORACETIC. (Chloracetic.)—Deliquescent, colorless crystals of faint odor, very caustic. Soluble in water, A., E. Powerful escharotic, pure. (Warts, nevi, corns, etc.) Astringent in nasal and laryngeal affections in 10 per cent. solutions. Test for urine albumin.

ADONIDIN.—Glucoside from *adonis vernalis*. Yellow, very bitter, hygroscopic powder. Soluble in water, A., E. Cardiac tonic, regulating the heart beats in dyspnea, palpitation, etc. Dose, one-sixth to 1 gr., four times daily with ammonium carbonate and chloroform water.

AGARICIN. (Agaric, agaracic or agaracinic acid.)—From white agaric, white microscopic scales, colorless, odorless, insipid. Soluble in A., hot water, slightly in E. and cold water. Almost insoluble in C. Antisudorific (in night sweats), one-third to two-thirds gr. in pill at night, or less hypodermically.

AGOPYRIN.—A mixture of antipyrine salicylate, ammonium chloride

and cinchonine sulphate. For coryza, bronchitis, influenza, etc.

AESCULIN. (Polychrome, bicolorin.)—Lustrous white acicular crystals. Soluble in hot water, fluorescent. Substitute for quinine in remittent fever.

AGAIHIN. (Methylphenylhydrazine salicylate.)—Small colorless or greenish scales, inodorous, tasteless. Soluble in A., E., Benz. Insoluble in water. Antirheumatic, anti-neuralgic. Dose, 2 to 8 grs., two or three times daily.

AITROL. (Bismuth oxy-iodo-gallate.)—Gray-green, fine voluminous, tasteless, odorless powder, permanent in dry air, but converted in damp air to a red basic bismuth compound. Soluble in soda solutions. Forms emulsion with glycerine and W. Use same as iodoform.

ALBOLENE.—A white, odorless, neutral petroleum jelly and oil.

ALLYL TRIBROMIDE. (Tri-bromhydrin.)—Colorless or slightly yellowish liquid. Soluble in E. Sedative, anodyne (hysteria, asthma, whooping-cough, etc.) Dose, 5 drops, three or four times daily. Inj. 2 to 4 drops dissolved in E.

ALUMINUM AND AMMONIUM GALLATE.—See galla.

ALUMINUM ACETO-TARTRATE.—Faintly yellowish granules, with acid, astringent taste, soluble slowly in water. Astringent, disinfectant. (Nasal and laryngeal affections.) Apply in one-half to 2 per cent. solution, or as snuff with 2 parts of boric acid.

ALUMINUM BOROFORMICATE.—Large, well-defined lustrous crystals, sweetish astringent taste. Soluble slowly in water. Astringent, disinfectant, used like aceto-tartrate, but is milder.

ALUMNOL. (Aluminum naphthol-sulphonate.)—White or pinkish powder. Very soluble in water (blue fluorescence) and in glycerin, less so in A. Insoluble in E. Non-irritant, antiseptic. (Wounds, gonorrhea, etc.) one-half to two per cent. solutions. In dermatology, 10, 20 or even 50 per cent. solutions.

(To Be Continued.)

...Prescriptions...

From London Medical Times.

For eczema of the auricle:

R Oxide of zinc.....dr. ss
Almond oil dr. i
Rose water dr. i
Benzoated lard dr. ii
Lanolinad. oz. i

—HENRY.

Incontinence of urine:

R Sodii benzoatis,
Sodii salicylatis . . .aa gr. xx
Fld. ext. belladonne. .gtt. ij
Aque cinnamomi . . .oz. iv

M. Sig. A teaspoonful four or five times daily.

—WHITE.

Tricophytosis:

Chrysarobingm. 10 to 25
Salicylic acidgm. 5
Ointment of styrax.gm. 5
Ichthyolgm. 5
Simple ointment . .gm. 5

—DU CASTELL.

The external use of salicylic acid.—Professor Revillod finds that salicylic acid is rapidly absorbed by the skin, and that acute rheumatism may be successfully treated without internal administration of the drug. It has also been found of value for local joint inflammations in muscular rheumatism and neuralgias. It may be prescribed as follows:

R Acid salicylicidr. iv.
Spts. vini rect . . .f oz. iv.
Chloroformi . . .f dr. iv.
Tinct. opiif dr. v.
Olei dulcis q.s. ad. f oz. xi.

M. Sig. Liniment.

This is to be applied on a flannel, which is to be covered with some impermeable material, morning and evening. In certain solutions a small quantity of chloroform may be added—say 5 per cent. This addition serve as an analgesic; besides, favors the absorption of the medicament. About twenty minutes after the salicylic is so employed it can be found in the urine, and a few minutes after a salicylic liniment is applied pain vanishes, and it is replaced by a sense of warmth and comfort. By the addition of opium the sedative properties of the mixture are enhanced so that

it serves more effectually as an analgesic in painful neuralgic affections, and thus obviates the necessity of administering anodynes internally.

Eruptions due to intestinal decomposition:

R Mentholgr. iss.
Oil of sweet almonds.mv.

Make one capsule. Take six to ten capsules daily.

—WIEN KLIN. WOCH.

Treatment of burns:

Aristol5-10 parts
Olive oil20 "
Vaseline,
Lanolineaa 40 "

—HAAS.

Hepatic stimulant.—The chloride of ammonium has a special action upon the liver, increasing the flow of bile (Ringer). It is also recommended as of use in the first stage of cirrhosis (Bartholow), and in catarrh of the stomach and bowels. It may be prescribed thus:

R Ammon. chlorid . . .dr. iii.
Sodii chloriddr. i.
Succi taraxaci . . .dr. ii.
Dec. aloes. co. ad dr. viii.

Sig. dr. ii—dr. iv. in water three times a day.

Emphysema.—To relieve the spasmodic cough, the following will be found useful with or without terebene, which may also be given separately:

Tinct. lobeliaedr. ii.
Sp. ether sulph . . .dr. iii.
Tinct. coniidr. ii.
Mist. amygd .ad. dr. vi. m.

Sig. A tablespoonful every three or four hours.

Flatulent gastritis.—Germain See strongly recommends cannabis indica as a gastric sedative of particular value in functional disorders of the stomach and bowels attended with pain, acidity, and flatulence. He advises 3-4 grain of the extract to be given in three doses, or it may be prescribed thus:

R Tinct. cannab. ind.dr. i-dr. ii.
Creasotim. v.
Syrup acaciaeoz. iii.
Sig. A teaspoonful before meals.

For Physicians' Wives

OUR NEW DEPARTMENT.

In opening a department for physicians' wives it is the purpose of the editor of this journal to make the same as interesting as possible to the average reader. We recognize the fact that many wives of physicians are not posted in all the technical names which appear in medicine, and they will be eliminated as far as possible. We shall in this department invite letters pertaining to the care of the household and sanitary and hygienic methods for nursing the sick and the management of children from any who are willing to advance the cause of woman's work along these lines. We hope to present, from time to time, dietary lists for the benefit of our readers who desire them, and miscellaneous articles of interest on various other topics. We recognize that this is a new departure for medical journalism, and we trust it will be received with favor amongst the practicing fraternity, to whom the advancement of woman's work in their own homes often means the making of a great and successful career.

THE WEARING OF SHOULDER STRAPS.

"A number of women have hopelessly deformed their shoulders by the wearing of shoulder-straps," said a physical culture enthusiast the other day, to a class of ladies. "The weight of the skirts on the straps has worn little furrows in the heavy muscles of the shoulders. Just notice the shape of women who wear narrow straps. Of course, it is not observable when they are dressed in ordinary costume, but in evening dress I can pick out everyone in the room who is in the habit of wearing straps.

"The proper thing is a fitted waist,

with heavy material set in round the arm-holes, and down the sides, as stays or strengthening pieces. To these are attached the buttons or hooks that sustain the weight of the skirts and hose.

"It is absolute suicide to hitch these things upon the ordinary corset. That throws the whole of the weight upon the body below the waist, and is the cause of more distress than one can well imagine. There are a great many people who could not be induced to put shoulder-straps on growing children; indeed, the waist is in every respect more desirable. It need not be high in the neck, but should cover the curve of the shoulders, so that the weight of the garments may rest evenly over them.

"The physical culturist has a wide field, and the time is coming when the possibility of developing the figure of a child will be studied as carefully as the development of the mind."—New York Ledger.

PLAYROOM FOR CHILDREN.

If possible arrange a playroom for the children. By this I do not mean a nursery, where dressing, lessons, meals and kindergarten work is done, but rather an apartment designed for what might be termed outdoor sports.

Very cold days this attic or basement room might be warmed with a coal, oil or gas-stove, if there is no other method of heating. If this is impracticable, however, do not in consequence give up the idea of a playroom. There are rainy days in summer and many inclement but mild ones in winter when an unrestrained indoor frolic will be a great treat to the children of this veneered age, when the grandmother's attic is a tale of the past.

In the winter children can don

overshoes, playcoat, cap and mittens, and with a shovel, hoe and wheelbarrow, enjoy many an hour with an indoor sand pile, and, we venture to say, tired mother and nurse will enjoy that hour as well.

Another feature for a playroom is blocks and plenty of them, cut as large as ordinary bricks, so that they can be easily handled with "mittened" hands, and "carted about" in express wagon or wheelbarrow.

An "unemployed" carpenter ought to manufacture dozens of these wooden bricks in a day out of the right kind of lumber. Various sizes of blocks would add much to the interest of building.

Ninepins, in lieu of a bowling alley, is another indoor-outdoor game which the children would appreciate in the playroom, and which outdoor wraps would not interfere with. A big blackboard, where several children can draw at once, is an artistic pastime which mittened fingers can indulge in, and colored crayons will add to the interest.

SCHOOL LUNCHEONS.

Let the children have a little different luncheon to carry every day, in which include a bottle of milk when the weather is not too hot; bread sandwiches, filled with meat chopped fine, scrambled egg, cheese or fruits, are always the basis of the luncheon, with a little jar of fruit of some kind, or apples, or oranges, or bananas, something of the kind, with cookies for a dessert, instead of the cold pie so often found in the children's lunch baskets. Children are very fond, too, of the English biscuits that you can get in tin boxes at any grocery store, and they form a pleasant change from the regular "cookies."—New York Evening World.

TEA GOWNS.

Every woman looks well in a tea gown. Every woman should have at least three. If she is the least bit tasty and knows anything about planning she can get up half a dozen lovely tea gowns for a very short sum.

A tea gown of black and white glace silk is not to be despised. A

draping of white chiffon in front makes the gown very dainty and chaste looking.

A dahlia-red tea gown, made a la Medici, looks regal upon almost any woman. The sides and back piece should be tight-fitting, and the front fall from the bust to the hem in a triple box-plait.

An Indian tea gown of copper-colored velvet is something new. It is made after a design Indian in treatment, but much like the regular Greek frock. A handsome neck ornamentation is made up of ruching of white satin, finished with rosettes of velvet.—Exchange.

CULINARY HINTS.

A few slices of bacon, under and over roast lamb, to improve the flavor of the gravy.

About a third the quantity in dates added to very tart apples for sauce.

When frying cakes, setting them in a colander set on a plate.

A teaspoonful of mustard mixed with the water and molasses which is poured over baked beans.

Roasting a young fowl for twenty minutes before cutting it up for soup.

Turning fruit which has begun to work into pickles by draining, boiling up the liquor, skimming, adding half a teacupful of vinegar to two and a half quarts of juice, sugar to make syrup, spices to taste, tied up in a bag. When liquor is clear, adding fruit, heating gradually and boiling four minutes before canning.

Clarifying soup by skimming while heating, adding a little cold water, after boiling, straining—if necessary, twice—mixing one egg and broken shell with one teacupful of cold water, then with one teacupful of hot soup, then adding to soup, boiling up, setting back and when somewhat cold, straining.

To prevent home-tried lard from becoming rancid, adding one teaspoonful of fine salt to each quart of hot lard and cooking a little after adding.

Jelly, of the surplus juice in cans of fruit, made with gelatine.—Good Housekeeping.



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Original

ANTISEPTIC TREATMENT OF TYPHOID FEVER WITH CHLORINE-QUININE SOLUTION.

BY. R. L. PATTERSON, M. D., COYVILLE, KANSAS.

Of all the methods of treatment receiving the professional sanction, the one having antiseptics as its basis seems the most rational. No one of the advocates of the antiseptic treatment claims that he can obtain an aseptic condition of the walls of the intestine, but it is claimed that the bacterial growths can be kept down to small numbers, and in a low state of vitality, and the bacterial poisons are very much lessened and consequently not present to be absorbed.

The main point to be considered in choosing an intestinal antiseptic is to get one that is readily absorbable and very soluble, equally as diffusible and that in over-doses is harmless. The substance best combining these advantages is chlorine.

The chlorine-quinine treatment was originated by Dr. Burney Zoe, of London, and has been successfully employed for 20 years. The best results are obtained if the case is seen early. But even in the late stages the remedy will have the best effects of any possible selection of the materia medica, as will be seen by the report of the following case:

A. C., age 19; weight, 165 pounds; sent for me on the eighth day, after taking his bed on account of epistaxis and hemorrhage of the bowels, which was quite severe. I found temperature 105; pulse, 115; general tympanites, tongue characteristic of typhoid fever, only it exceeded in filthiness and ulcerations any specimens of the lingual organ that I have ever inspected, except in cancer of the tongue.

He had not had any medical and very little domestic attention for eight days. I prescribed the chlorine-quinine treatment in one ounce doses, every two hours; next day the temperature was 102; blood nearly absent from the alvine evacuations; only had five up to 2 P. M., on the second day, after beginning the medicine. The day preceding he had at least 12 watery and bloody stools. I think from the appearance of the patient he had lost at least 25 pounds of his weight. The case looked serious at the first treatment, and the general appearance was not much improved; continued the same treatment at the same intervals, and on

the fourth day of the treatment the temperature was normal in the afternoon. I ordered the same medicine in half-ounce doses, every four hours; visited him once more; he stated he slept about five hours; temperature normal; bowels only acted once in 24 hours, and he stated that for the first two or three hours of the interval between the doses of medicine he felt good, but weak; but after that until the fourth hour his stomach began to hurt him and felt full. I ordered, then, two teaspoonfuls

every two hours, and ten grains of powd. tri. ferment comp., three times a day, after taking his usual allowance of somatose. On the sixth day he told his attendants he would need no further attention from me, as he was able to be about the house.

The daily *Lancet* reports 26 cases in the issue of December 18, treated successfully with the above antiseptic mixture. They can make it 27, and the 27th was under very unfavorable environment.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION, WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

ON THE PLASMIC CURRENTS.

PART XVII.

When we come to examine the various structures of the body, in advanced age, we will observe an avascularization of the tissue on a large scale. It is then physiological; one of those changes which go in advance of, or attends degeneration, or dissolution.

It is most pronounced in the osseous structures, though commonly it may be observed in the walls of the vessels in the atheromatous state.

After the meridian of life is past notable changes of a new order begin to manifest themselves. The muscles show signs of wasting in the slower and inelastic step, and tendency of the head to move forward, from a weakening of the posterior cervical group of muscles. Later, marked ataxia is evident; the skin atrophies, i. e., the papillary layer and corium become thin and fall in folds

on the wasting beds of areolar tissues. All the organs in the body show senile changes, with diminished physiological activity.

The whole body loses in weight and height. The circulation of the blood at this stage of life is becoming more and more difficult. Changes in the bone elements, hardening, condensation and contraction, lead to a narrowing of the canaliculated passages which traverse them, and those foramina which are lodged in cancellous structures. The diploic spaces between the skull plates is obliterated, and but a brittle, hard shell of bone remains. Through these changes in the osseous structures overlying the brain, as time advances, the supply of blood to the meninges becomes gradually reduced or wholly cut off. The calcification of the skeleton, the gradual resorption of its organic elements, shrinking and hardening it, lead to manifold disturbances of its function and integrity.

If we examine the centre of the shaft of the femur or humerus, in an old person it will be noted that through the lamellae of the compact layer no blood-vessels of any size are visible, in the central part. As the saw passes through it, in an amputation, it produces a sensation to the hand, as though going through metal. The cut surface is smooth, dry and of an ivory hardness. On careful examination of a ring of this eburnated bone, we will notice that the thick cancellous layer in contact with the medullary membrane has quite disappeared, thereby giving an increased diameter to the bore in the shaft.

A segment of such bone is much heavier than in the youth. The periosteum is thin, and so incorporated with the surface as to be detached only by tearing it off in shreds. The minute canals, produced by an ingrowth of the fibres of the periosteum, and conveying vessels directly from the periosteum to the medullary membrane, the so-called lacunae of Howship, are now very few in number, and in places are entirely absent.

Histological examination of senile bone is not satisfactory. We derive more information, with respect to its vascular elements, by an examination of its rough characters.

In order to prepare bone for the microscope we must first, with a strong acid, dissolve out the lime elements, a chemical process which in itself extensively alters the finer structures; but in bone, highly calcified, there is but an indifferent stroma of connective tissue framework.

Nevertheless, even now, under a low power, with the sections well stained, we can readily detect the extensive alteration in structure. On the periphery are seen many vascular openings, which, however, do not penetrate sufficiently deep to inosculate with Haversian systems, which are now occupied only by minute fibrillae which marked the former site of the vessels. The stellate arrangement of bone corpuscles and canaliculi is yet preserved, but all resemblance of vascularization is lost.

Sections through decalcified segments cut away from the epiphyseal ends, present well marked evidence of an imperfect vascularization; nevertheless, even here, it is clear that fatty degeneration and infiltration had rendered impossible anything more than an imperfect circulation of all the elements of the blood. By soaking sections of the same specimen of senile bone in alcohol and in the alkalies and removing the oleaginous substances, after drying, a lapidist prepared for me several scale-like sections for the microscope.

In these it was clearly demonstrable that calcification or petrification had so far advanced in the central elements as to choke up and obliterate for the greater part the complex canals of Havers. All limitation of the vascular territories, the trabeculae and lacunae were absent. It was only immediately under the osteoblastic layer of the periosteum that a trace of any regular vascular arrangement was discernible.

It is a matter capable of simple demonstration that not only the osseous elements, but many of the other structures in the body gradually diminish or entirely part with their vascularity, the main arterial trunk itself finally perishing through its vasa-vasorum, failing in energy and ceasing to provide the required pabulum for the adventitia or muscularis.

But it may be inquired how is it that if the tissues of those advanced in years are the seat of vascular degeneration and wanting in an abundant blood supply, nevertheless their recuperative qualities are quite equal to those in middle life? My own experience with fractures has long since convinced me that with the possible exception of intra-capsular fracture of the neck of the femur in middle age or old people all other fractures undergo repair quite as rapidly and completely as in those younger. Clinical facts would therefore prove that, although the senile bone shaft is positively wanting in that canalization necessary for the transmission of blood, still in some manner, not yet fully understood, the

necessary regenerative elements or juices are carried to the point of injury for the reunion of the sundered bone.

Here, again, the plasmic currents come into play. And we will notice that this fluid carries all the elements requisite for the work, the lime and other salts, the fibrogenic and osteogenic materials. We are informed that various anatomic elements, the protoplasm of epithelia and other corpuscles possess hemotaxic properties, i. e., they have the power of selecting and absorbing from the circulation those elements required for each to perform its function.

The plasma, in itself containing all the needful elements in osseous repair, the blood-corpuscles, serve probably for no other purpose here than in fulfilling their function in regulating tissue metabolism or through the leucocytes, in some unknown manner, influencing inflammatory changes in the type of fractures mentioned.

The hemopexia, or blood-clotting over the ends of the shattered fragments then probably serves only a mechanical process, the fibrinated reticulum securely fixing the mutilated adjacent soft parts, while the corpuscular elements break down, decompose and are resorbed.

We have various pathological conditions, which go to show that direct vascularity of a part is not essential for its vitality or increased energy. One illustration will be ample to demonstrate this, in the degenerative changes which fall on the integument of the aged, though the papillary and adenoid layers and subcutaneous tissues, which are highly vascularized, undergo a steady shrinkage, and hence the bones and joints become more prominent. The *retamucosum* and the *derma* acquire in many old people renewed activity when epithelial proliferation begins and malignant growths make their appearance, by preference in scaly structures, devoid of blood vessels. Another curious feature connected with this is that epithelial formations have the property of diffusing or disseminating themselves in neighboring parts, as in the axillary lym-

phatics in mammary cancer. But how do they get there, since no hemotologist has yet found epithelial elements in the blood? Evidently through the plasmic currents outside the capillaries, or through the lymphatics.

Some may say that they reach the absorbents through the lymph-channels. But how do they diffuse themselves through the stroma of the gangloic layer in the follicles of Malpighi and the interfollicular tracts, where no regular system of vessels of any kind abound? In the same manner it must be that they leave their normal abode through the plasmic currents.

Keeping a knowledge of this accessory, acorpuscular circulation, so to speak, in view, when one comes to make a minute study of pathological processes it will make clear many embarrassing and confusing features impossible of comprehension without it.

That *ignis-fatuus* of pathology, inflammation, or rather some of its phenomena, will at all events be divested of some of its more subtle manifestations and be simpler of comprehension.

Physiologists have strained their brains in endeavoring to solve the problem how inflammation can occur in a structure destitute of blood-vessels, as the endothelia of the arteries, but, when it is understood that this so-called inflammation is nothing more than a disturbance in nutrition, and that it may and does involve in various degrees living protoplasmic elements, wherever situated, the problem should be easy of solution. The great confusion comes from the fact that the essence of inflammation is not understood; and hence it becomes absurd and futile to dogmatize on something yet quite as far beyond our ken as it was in the days of Hunter.

THE CORPUSCULAR ELEMENTS OF THE BLOOD.

Of late years extensive investigation has been directed by physiologists and experimenters to the floating particles in the *liquor sanguinis*, the globules or corpuscles.

Means have been devised by which no doubt a reasonably accurate estimate can be made of the proportion of the red corpuscles in health and disease, and it is probable that, with the chemical agents now employed by hematologists to fix the corpuscular elements, it is possible, under varying circumstances, to study with a certain degree of accuracy the finer changes in the morphological characters of the corpuscles appearing in disturbed conditions of health.

Laveran has opened a new field in his observations of the corpuscles in malarial conditions, and his description of the different types of plasmodiae, which he believes to be present, not only when an attack of paludal infection is at its maximum, but as well for some days preceding the attack.

Much confusion yet remains in the classification of the corpuscular elements and their functions.

In different countries the same elements receive various names, and divergent interpretations are placed on similar phenomena.

In the student days of the present generation of practitioners little was known or taught of the blood corpuscles, except that they were divided into two classes, the red and white. Of late years, when speculative reasoning enters into everything in the domain of science and greater facilities are afforded for accurate observations, the corpuscular elements of the blood and their supposed derivatives number more than twenty separate divisions, and each year brings steady enlargement of the number.

We have now not only the colored and white corpuscles, but the matured blood disc, the hematoblast and granule, besides the various types of the red corpuscle, as examined under the microscope and induced by artificial or pathological conditions.

The leucocyte has apparently various species, the largest and dominant having distinct ameboid characters. Some regard this as identical with the pus-corpuscle, probably because the latter, in its freshly drawn state from one of a strong con-

stitution, possesses moderate ameboid movements.

Other histologists regard the leucocyte as a phagocytic agent of great activity, while other later investigators deny to it this property. From its itinerant, wandering propensities it certainly is yet extremely uncertain just what purpose it serves in the economy. It is true that we can see the larger leucocyte spread widely out its sort of tenacular prolongations and engulf whole groups of bacteria at once, but whether it eats them, destroys them or simply gathers them up to again liberate them for fresh efforts is not proven, though the weight of evidence tends to show that this body possesses phagocytic or bactericidal properties.

The colorless corpuscles in number or in proportion within the blood are variable, both in disease and health. Their relative scarcity would imply probable truths of a previous statement, viz., that their presence is only incidental in the circulation. We find them present in the human blood in the proportions of from one to eight hundred or less, and as scarce as one to twelve hundred red globules, the average being about one to seven hundred and fifty.

In the mesoblastic canaliculi of the fetus until the third week the blood is colorless or only faintly tinted, and no red corpuscles are yet present. All the corpuscles are now colorless, though none can be found which correspond in characters to the leucocyte.

The leucocyte is a nucleated body, much larger than the colored globule. Hayem says that it is the least vulnerable of the corpuscular elements of the blood, and yet, in the presence of this statement, Bizzozzero noted as a constant phenomenon that when blood is withdrawn from the body the proportion of leucocytes found is very much diminished.

This experience of this noted Italian scientist has been supported by my own experiments on the mesentery of the kitten and pup. In no instance was I able to discover the same numerical proportion of leucocytes in the withdrawn blood as could be seen to exist in the living,

moving current. My own estimate was a loss of more than a fourth in transit. How, indeed, they disappear under these circumstances is difficult to understand.

This phenomenon, however, points to the instantaneous and great changes which occur in the blood through very trivial disturbances or exposure.

The leucocyte, if not a scavenger, is a notorious itinerant and may be found in any tissue of the body which is traversed by blood vessels; moreover, in avascular structures, like the cornea, when the seat of inflammation, these corpuscles invade them in considerable numbers.

Until lately it was generally taught that pus corpuscles and leucocytes were identical, the theory being that in the presence of all localized inflammation, by a process of diapedesis, the leucocytes left the capillaries in great numbers in their eager advance on the invading army of microbes. It was believed that they were chiefly concerned in the throwing up of intrenchments and thus walling off the area of infection; that they then turned on the myriads of

invaders and devoured them in such numbers as to entail self-destruction, when they were thrown off, dead, in the necrotic process of suppuration, or became encysted, liquified and resorbed.

This, like many other captivating theories, was quickly seized on to throw more light on pathological processes, but the investigations of many later experimenters place it in a doubtful light.

In my own studies on diapedesis, in the normal state of the tissues and after provoking inflammation, I was forcibly struck with the fact that diapedesis is equally active in physiologic as pathologic processes, and that in inflammatory conditions the red corpuscles left the vessels in equally large numbers. After the peripheral stasis of inflammation has set in there is an extensive transudation into the surrounding tissues of all the elements of the blood. After this has been well established we have those retrograde changes which lead to a reversion of protoplasmic elements from which the pus corpuscle is probably evolved.

(To be continued.)

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number)

CHAPTER II.

(Continued).

By the side of the form already discussed we will place two particularly refined varieties, which may be named: The first, vagino-uterine masturbation; the second, uterine masturbation.

VAGINO-UTERINE MASTURBATION.

This maneuver, happily unknown in our country, I think, denotes a consummate skill in the art of inventing new pleasures, a skill due to the idleness in which are plunged women of a certain rank in China and Japan and the Odaliskues who people the

harems of India. These women bring about the venereal spasm in themselves by determining a slow and continued agitation of the genital nervous system by means of a special instrument.

This is composed of two metallic spheres, usually in gold-plated brass, which are extremely thin, of nearly the same size, and whose volume rarely exceeds that of a good-sized pigeon's egg.

One of these spheres is of such size as to readily contain the other, the diameter of which is a trifle less than that of the first, and so can roll about in its concavity. The second sphere is empty.

If these two balls are placed in ap-
position and held in the hand they
immediately cause a kind of vibra-
tion. We notice a prolonged sensa-
tion of trembling which is maintain-
ed by the slightest muscular contrac-
tion or most delicate movement.

The empty sphere is introduced
into the vagina as far as the cervix
uteri; the other—the male—is then
placed in such a manner as to touch
the first.

The slightest movement of the hips
or of the pelvis displaces and causes
the solid contents to roll about in
the encircling sphere; the resulting
vibration, increased by the hollow
sphere, which vibrates in unison, is
imparted to the nervous system of
the vagina and of the uterus. The
venereal erethism begins.

All putting in play of the apparatus
now becomes useless; the fibrillar
contractions of the vulvo-uterine pas-
sage suffice to keep up the slow, con-
tinuous and uniform vibration, which
soon conducts the woman to the
apogee of excitement and procures
her a spasm of delirious intensity.

UTERINE MASTURBATION.

I stated that the preceding method
of masturbation was unknown in our
country; there are, nevertheless, wo-
men within our borders whose de-
pravity may be compared with that
of the Japanese, Chinese or Hindoo
females.

Some inveterate masturbators, who
can no longer call up any sexual feel-
ing either by vaginal maneuvers or
by manipulation of the clitoris, have
conceived the idea of tickling the
mucosa of the uterine cavity with
foreign bodies. We shall, in the
course of this work, call attention to
several cases of this kind.

CLITORIDIAN MASTURBATION.

This form is more common than
the preceding ones. I have sub-
divided it into: First, personal; sec-
ond, extraneous.

First, personal clitoridian mastur-
bation.—Individual and solitary
manualization is of all varieties the
most usual, and is as common in
adults as in young girls or children.

It consists in more or less rapid
movements of tickling or rubbing im-

parted with the finger or with some
one of an almost endless variety of
instruments, upon the dorsum, or pre-
puce of the clitoris until the venereal
spasm is produced.

There are cases where particular
movements replace the hand or other
objects.

Thus, running a sewing machine,
sitting in a certain position so as to
produce a friction of the thighs upon
each other, or of the genitals upon
the corner of a piece of furniture, the
arm of a chair, the edge of a mat-
tress or pillow, or finally, various con-
tortions of the body are sufficient
for some women.

Here are two observations taken
from the "*Journal des Sage-Femmes*,"
which borrowed them from the "*Re-
vue Scientifique*" shortly after the
first publication of our work in the
"*Tribune Medicale*."

"Facts of this sort," said the author
while speaking of masturbation in
children, "are not absolutely new, for
our attention has long since been
called to the habit of onanism in very
young children, but this case seems
extraordinary, even from that point
of view:

"In November, 1873, Dr. Palle, of
Epernay, sent me a little girl, seven-
teen months old, who had been a
confirmed onanist for some time.
She not only gave herself up to
vicious actions with her hands, but
she used also her thighs and legs to
cause the venereal spasm. The gen-
eral appearance of the child showed
but too plainly that she had suc-
ceeded only too often in her en-
deavors.

"Extreme irritability of the ner-
vous system, loss of appetite, exces-
sive loss of flesh, anemia, dark circles
around eyes, which were deeply
sunken in their orbital cavities, such
were the essential and striking phe-
nomena presented by this child.

"Six months later, that is to say, in
July, 1874, a little girl, scarcely one
year old, was brought to my office.
This child practiced onanism furiously.
She always insisted upon being
placed upon the floor, but whether
there or upon a chair she immedi-
ately commenced movements of the

pelvis and legs which resulted in causing the venereal spasm.

"At my request, and to permit me to verify the fact, the child was placed upon a stool. Scarcely was she seated in this, her favorite position, when she commenced to make continuous to and fro movements of body and legs, kept up for at least two minutes; at the end of this time we saw her throw herself backward and writhe convulsively, while uttering little screams. When she came to herself again she immediately took her former sitting position and tried to recommence her maneuvers, and vented in tears and anger her spite at being prevented by us from carrying out her designs.

"This child presented very nearly the same morbid conditions and external appearance as the preceding case, but had in addition a local trouble of paramount importance. There was an intense vulvitis. As is well known, vulvitis in these cases is often the cause, as well as the effect of the trouble."

Second: Extraneous Clitoridian Masturbation.—This is of two kinds, A, human, or B, bestial.

A, Human.—Sometimes lascivious old men, or depraved younger ones, for a sum of money paid to "pro-curesses," or even to the parents, commit shameful digital or lingual maneuvers on the poor little children, who do not understand much of what is being done, but who, unfortunately, will remember it later in life. Sometimes depraved girls are found in young ladies' boarding schools or in workshops who instruct their companions in the various methods of procuring illicit pleasure.

Finally, some young girls or married women who, the former through fear of pregnancy and the latter because of being unable to procure any enjoyment the natural way, force their lovers or husbands, *vel manu vel lingua*, to procure them venereal pleasure in return for the favors they allow them.

Sometimes, indeed, the husbands or lovers are the ones who take the initiative and force their unhappy companions to undergo all kinds of lascivious practices.*

Conjugal onanism, which is very common in our epoch, did not escape the observation of Doussin-Dubreuil, although then much less common than now.

"What I cannot conceive," said he, "is how grown men who know perfectly how dangerous an excess of masturbation is, can employ a like method on persons to whom they are united by the most sacred bonds.

"How can they ruin the health of a person who is dear to them? These libertins must know that outraged nature will sooner or later make them repent of their extraordinary conduct.

"He who performs this strange service must learn that besides the serious accidents to which he exposes her whose senses he exalts and fatigues, he must expect to have his kindness and affection received after a time with progressive, involuntary coolness."

B. Bestial.—This method of masturbation is far from being rare, especially in the large cities. The prostitutes and members of the *demi-monde* are the ones who are most given to it. They offer clitoris and vulva *ad linguam canis*, who is usually specially trained for this disgusting practice. This is a well-known fact, and need not be insisted on.

URETHRAL MASTURBATION.

The whole of the vulva is endowed with most exquisite sensitiveness, which is more intense in certain parts than in others, and we may even say of a different quality in the different places. It is this diversity which explains the non-uniformity of onanistic practices. A woman, for instance, in whom clitoridian maneuvers cause nothing but fatigue or hysterical attacks of laughing or crying, may have a most intense venereal spasm after titillation practiced at the *introitus vaginae* and vice versa.

This may possibly be the explanation of certain onanistic acts that would be otherwise considered as veritable aberrations, for before touching the extra-genital forms of pollution we must insist upon the fact that vagina, clitoris and uterus are not the only sensitive points in the vulva that women submit, in

* Bergeret, des fraudes dans Paccomplissement des fonctions, pp. 167-168.

their search for sensual pleasure, to rubbing and titillation. The meatus urinarius with its erectile button, and the two little glands whose orifices may be seen right and left of the entrance of the urethral canal itself, are for some persons the principal and almost exclusive foci of erotic pleasure.

Whatever may be the cause, the meatus urinarius and the commencement of the urethra form a centre of voluptuous sensation that more women than we imagine develop abusively by repeated touching.

Some even go farther. In the hope of new and more acute enjoyment, they tickle the depths of the urethra with the most diverse bodies, without for one moment thinking that to the dangers resulting from onanism they add the imminent risk of losing, in the urinary passages, the instrument they are making use of. In a subsequent chapter we shall mention a number of cases which prove that urethral masturbation is a form of onanism that is not infrequently practiced.

Accessory Practices.—These already mentioned different and principal methods of feminine pollution are often accompanied by accessory maneuvers with the nymphæ, such as pulling, rubbing, twisting, etc., whence result elongation, withering or hypertrophy of the labia minora. In many women given to this vice, these extend beyond the labia majora, become discolored, calloused and destroy the harmony of the genital forms, while being the locus originis of different ailments.*

Before finishing this chapter, we must call attention to the fact that some "blasees" do not hesitate in their morbid ingeniousness to have recourse to some very strange practices, either before or simultaneously with genital masturbation. I refer to mammary or anal defilement.

The intimate connection between the breasts and the generative organs is also well known.

The union is such that the erection of one of these parts is usually followed by orgasm of the other. Now, certain women, well aware of this cor-

relation, do not hesitate to make use of it and seek "lingual kisses" and extraneous manipulations to calm their monstrous appetites. They indulge in tickling the erectile extremity of the breast, the nipple or, as Ch. Mauriac calls it, "the third centre of sexual innervation."

"Although infinitely less active than the two others," says this author, "it possesses or acquires, in exceptional cases, such a faculty of voluptuous erethism, that its titillation, either uni- or bilateral, can provoke in all their plenitude and intensity the sensations of the genital spasm, together with the emission of the accompanying vulvar liquid. Although rare, the fact is nevertheless authentic. Some extremely lustful women have been known to commit onanism in this manner, although they by no means neglected all other natural or artificial methods of inducing the venereal paroxysm.

CHAPTER III.

CAUSES.

The nerves which supply the female sexual organs come from two sources—those of the vagina from the hypogastric plexus and those of the clitoris from the sacral plexus.

The ischio-clitoridian nerves spread over the dorsum of the clitoris, and after sending numerous filaments into the corpus cavernosum lose themselves in the upper folds of the nymphæ that surround the clitoris like a prepuce. It is in this prepuce that Prof. Sappey places the centre of venereal pleasure.

It is, I believe, generally admitted that the male usually finishes the act of copulation before his partner, who is, under these circumstances, passive. It often results then, that the woman is only more or less excited when ejaculation puts a sudden end to the sexual congress.

This relative slowness in the production of the venereal spasm seems to have been malinterpreted by certain authors, who do not hesitate to affirm that women are less than men given to the pleasures of love.*

* Martineau, *Leçons sur les déformations vulvaires et anales*, 1885, Paris.

* c. f. Londe, *Hygiène de l'Encephale*, vol. i, ch. 6.

This statement is far from proven, and it is hardly worth adducing, contrary to the opinion of Londe, the salaciousness of the women inhabiting warm countries, a fact known of all antiquity.

"Ægyptiacas faeminas Veneris in tantum famelicas esse, narrat Herodotus, ut cum hircis rem habent."

Then I need only mention the names, well-known in history, of Semiramis, Queen of Assyria; of Julia, the daughter of Augustus; of Messalina, the wife of Claudius; of Agrippina, the mother of Nero; of Faustina, the wife of Marcus Aurelius, and of Eusibia, the consort of Constantine the Great.

Americus Vespucius, writing of the inhabitants of the New World, wrote: "Ad quamquam novi orbis oram appulit, ubi mulieres libidini adeo erant devinctae, ut, baccantum more, in nautas furerint?"

Dr. Guillemeau* informs us that in Patoni, in the peninsula of Malacca, the men are obliged to wear breech clouts to keep off the too enterprising members of the feminine population.

So much for the countries where the thermometer ranges high throughout the year; now among the women of the temperate and cold latitudes, history has handed down to us the names of the Duchesse de Berry, the daughter of the Regent; of Elizabeth Petrowna, of Russia, and the wife of Peter the Great; Catherine II, who counted as high as a dozen lovers at once. Have these women not equaled and surpassed in eroticism the most lascivious men?

The continuation will show that these facts may aid to determine some of those causes of manualization which are but slightly known.

The causes of onanism may be divided into five heads:

(a) Physical causes. (b) Social causes. (c) Intellectual and moral causes. (d) Mixed causes. (e) Religious causes.

(a) PHYSICAL CAUSES.

I subdivide these into 1, particular; 2, morbid; 3, mechanical.

First, particular physical causes. These may also be named predispos-

ing natural causes; these are the temperaments and the idiosyncrasies.

It is certain that women of bilioso-sanguine, bilioso-nervous or nervoso-sanguine temperaments of genital predominance or idiosyncrasy are, other things being equal, more inclined to manualization than others. It is also certain that dry and warm climates are more conducive to onanism than cold and damp regions.

Second, morbid physical causes. Want of care and cleanliness allows the smegma to collect between the labia majora and the labia minora, and especially below the prepuce of the clitoris. This smegma according to MM. Robin and Littre is merely a product of the accumulation of detached epithelial cells moistened by the liquid that exudes from the genital mucosa.

This material mixed with dust from the street acquires, while putrefying, a certain acidity which causes a slight amount of itching in the organs of generation.

To cause its cessation, the child rubs and scratches itself, and discovering that a certain amount of pleasure follows this procedure, she recommences, once, twice, ten times—she has become an onanist. This is one of the most common causes of masturbation in little girls.

The same thing is true of vegetations of the introitus vaginae as well as of the meatus urinarius and vulva; of vaginitis, simple and specific, at its commencement; of inflammation of the vulva, vaginal glands and especially true of vulvitis.

"Inflammation of the vulva," says A. Guérin*, "has this danger for young girls. They instinctively carry their hands to their privates and finish by discovering that vice which is not always cured by marriage."

Of the different varieties of vulvitis, that called "oestral," which is localized at the clitoris, its prepuce and in the vicinity of the meatus, will infallibly drive women to manualization.

** "In this form the pruritus is extreme, the clitoris is in continual erec-

* *Maladies des organes genitaux chez la femme*, p. 259.

** *Des ecoulements blennorrhagiques aigus et chroniques*.

* Polygenesie.

tion, and the patients, whatever their native modesty, cannot restrain themselves from frequently carrying their hands to their vulva and rubbing themselves violently.

"As soon as they are alone they give up shamelessly to masturbation. In spite of everything, they will have the venereal act. Their faces are red and animated, their glances wanton and provoking, their remarks engaging and lascivious; in short, they have in a lesser degree all the symptoms of nymphomania."

Pruritus vulvae and certain diseases of the skin and mucosa bring about onanism.

Among these are psoriasis and eczema of the labia majora, vaginal erysipelas, intertrigo, etc. These diseases are mostly local, but others, as general eczema, the itch, etc., will bring about the same result.

Vicious conformation of the genital apparatus may have the same effect. Roubaud*** says, in describing the case of a woman without uterus and whose vagina had only the depth of one's finger:

"The venereal sense, without being very energetic, exists. Before becoming a prostitute, this woman had loved, and because coitus was painful, on account of the shortness of the vaginal canal, she found pleasure in handling and masturbation."

Inflammations of the uterus, poly-pi, etc, the fibrous growths of this organ, are considered by some practitioners as predisposing to manualization. Deslandes says that M. Calmeil found in a monomaniac with unruptured hymen, and who gave herself up to the most unbridled onanism, the os and part of the cervix of a violet color, softened and ulcerated.

The objection may easily be made that in the case just mentioned the condition of the womb was less the cause than the result of genital excesses, but we cannot say the same of those cases where M. Lisfranc saw cauterization of the cervix uteri followed by a kind of erethism of the genitals with intense sexual desire.

Diseases of the ovaries do not seem to be without influence upon the

production of masturbation. Vesalius, Riotan, Lieutaud and others have observed alterations in the ovaries of nymphomaniacs.

Blegny* says that a patient in the Salpêtrière, subject to frequent attacks of uteromania, and dying in one of them, was at the post-mortem found to have extensive morbid changes in the right ovary and fallopian tube.

We have also to consider as an active, or, perhaps, as only a predisposing cause of manualization, the ingestion of aliments and medicaments which cause congestion of the genital apparatus. Under this head would come food spiced with pepper, cinnamon, cloves, nutmegs, vanilla, and truffles; exciting and spirituous drinks, cantharides, phosphorus, saffron, absinthe, rue, savine and all the emmenagogues. I will add certain strong odors of flowers or perfumes: musk, benzoin, patchouli, etc., which act upon the nervous systems of many impressionable women.

The drastics taken internally or by enema produce an analogous action; so will chronic constipation, and the presence of scybalous masses in the rectum, which cause reflex action of the sexual organs and act as an irritant, resembling in this the disturbance caused by the presence of a pessary, or sponge, or any other object in the depths of the vagina.

Of encephalic diseases I will mention only nymphomania, although some others seem to exert an influence on the genitalia.

Idiocy, however, I must not omit, for according to all the specialists in diseases of the brain, the solitary passion exists in the highest degree in idiots as well as in certain insane patients, whose genital organs are in a constant state of excitement, and who hasten by their maneuvers the fatal term of their malady. Esquirol says:* "These beings give themselves up to this deplorable habit in excess, shamelessly, before anyone and everywhere, and seem to live only for onanism."

Who is not acquainted with the case reported by Silvestri, of Paler-

*** *Traite de l'impuissance*, etc., pp. 537-538.

* *Journal de Medicine*, vol. xxv.

* *Maladies Mentales*, Vol. II, p. 331-336.

mo, of a young idiot girl, who had masturbated from childhood, and had so dilated her vagina that she could introduce her hand and part of her forearm into it, which she withdrew covered with a sanguinolent fluid which *ad os suum portavit*?

Phthisis is given by some authors as another incentive to onanism. I

am of their opinion, but think its development is often the result of these practices.

Other diseases have been mentioned by various practitioners as conducive to the solitary habit. The proofs are, however, hardly of sufficient weight as yet, to justify the supposition.

(To Be Continued.)





Editorial

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SIGNS OF CLEARING IN THE ATMOSPHERE.

At the time when the wholesale dismissal of visiting staffs of the New York hospitals went into effect, President Porter, of the Board of Charities and Corrections, when approached by newspaper reporters, who were desirous of learning how the Board proposed to overcome the hostile attitude of the displaced physicians, alleged that the changes had the approval of the profession, with the exception of a few "sore heads who had to walk," and that after a few days all signs of opposition would blow over and nothing more would be heard of it.

By a united and determined attitude on the part of the profession at large in New York, primarily directed against this individual, the Mayor has been forced to act, and begin the good work of "reorganization" by deposing him and transferring to another department a second charity commissioner.

This leaves but one of the three who have rendered themselves conspicuous and open to hostile criticism for the gross outrage which has been committed and the grave wrong imposed on a large number of prominent practitioners in the late colossal hospital grab by the medical colleges.

moved from the possibility of doing further harm, an opportunity will be

Now, that Mr. Porter has been re-permitted him to realize his qualities in the role of a reformer and a prophet; and that when the medical profession, as a whole, is moved to action its reasonable demands must not be ignored; nor will it with indifference endure the indignities and insults which it was always his pleasure to heap on it.

As a matter of fact, never has the profession been more aroused to aggressive action, determine to have the whole conspiracy unearthed.

And, after all, forthcoming events without question will prove that the Commissioners have been nothing more than mere tools, and had been led into a trap by unscrupulous cohorts, whose sole aim and object was to monopolize and hold as a mammoth trust all the hospital patronage of New York.

The prospects now, however, are that their acquisition would be short-lived.

Mayor Strong has recently appointed a gentleman of high scholarly attainments and a war veteran, General James R. O'Beirne, to succeed Mr. Porter, and Mr. J. W. Croft, a

business man, succeeds Commissioner J. B. Wright.

At the present time, both county medical societies of New York and the Academy of Medicine have commenced action, and in the near future we may look for revelations which may force our medical organizations to employ all the powers at their command to force the adoption of such a course as will satisfy the demands and vindicate the position of those who so lately have been made the victims of unprincipled and selfish miscreants, the late conduct of whom no language is sufficiently strong to properly denounce.

The leading medical journals of America, notably the New York Medical Record, the New York Medical Journal and the Journal of the American Medical Association, with several others, deserve unstinted praise for their aggressive stand against the action taken by the medical faculties of the three principal colleges of New York to monopolize all the medical appointments in the public hospitals thereby centralizing power and creating an aristocratic

trust, and making is impossible for one to even aspire to a position of prominence or distinction in his profession unless identified with a teaching body.

Our great nation is now in imminent danger of being drawn into a war with one of the most powerful empires of the earth, because of the latter's propensities to extend to an unjust limit its boundaries and encroach on the domain of a feeble, defenseless Republic. Let us look to it, then, with vigilance, that the "crooked lines" in our profession are straightened; that the independence and prerogatives of every practitioner are jealously guarded; that the scheme so suddenly sprung on the profession in New York is nipped in the bud, for its success and permanency means an extension of the principle to other American cities.

But we maintain an abiding and unswerving faith in the loyalty of our profession and will await its ultimatum on the unfortunate state of things now prevailing in New York, with a firm conviction that in the end right will triumph.

USEFULNESS OF SUGAR.

The value of sugar as an article of diet is universally conceded by all authorities whose opinion is worth having. It is used in an almost endless variety as a nutriment and a condiment, without creating the least suspicion of any injurious effect, within the limits of ordinary prudence. Of course, when eaten to excess, even by perfectly healthy persons, or by children with an hereditary tendency to diabetes, bad results may follow from eating sugar, just the same as in cases where meat or fruit is taken inordinately or out of season; but in these cases any evil which may follow must be ascribed to the abuse rather than to the use of these things.

There is no reason or excuse to dispute this position as to the nutritious

or healthful character of sugar, within the limits named. Some scientific authorities have gone so far as to assert that it is possible to maintain life for a considerable time on no other diet than sugar.

As it is no part of our purpose to assume debatable ground on this question, we will limit ourselves here to saying that sugar is highly nutritious, promoting the growth of fat and lactic acid, and furnishing the material for the maintenance of respiration and promoting heat in the system by its oxidation. It lacks, however, oxygen, which alone prevents its being available as a universal and permanent food for animal life, and of course this must be sought elsewhere.

ENTERPRISING MEDICAL JOURNALISM.

Our esteemed contemporary, the New York Medical Record, in an editorial in its December 28 issue dilates on its enterprising methods which will be carried out the coming year of 1896 respecting its typographical composition in the following manner: "It will interest the many readers of the Medical Record to know that its circulation has increased so greatly that it is no longer possible to print it from type." . . . "To meet the requirements thus made necessary we shall set the type of the Medical Record by machine and electrotype the pages as fast as they are made up." . . . "The Medical Record will thus be, we believe, the only medical journal in the world printed from electrotpe plates and on modern newspaper perfecting presses. It marks an epoch in the literature of medicine," etc., etc.

Poor old New York!!! Just coming

around to what "slow" Philadelphia has been doing the past two years in practical medical journalism. True, the Times and Register has not seen the necessity of electrotyping its pages, because our machine set type, new every week, has been sufficiently strong to bear a hundred thousand impressions, if need be, or even more. The Record calls it "an epoch in medical journalism." If so, it is certainly nearly fifty per cent. cheaper than hand composition, and we have been doing it to save expenses, and we rather suspect that this is the object of our worthy contemporary.

However, we wish the Medical Record abundant success in their new enterprise, if it can be called "new," and trust that the new year may bring it the support it well deserves as a medical periodical of high order.

ANOTHER CHANGE IN LOCATION.

We learn that our contemporary, the Medical News, of Philadelphia, has removed its editorial office, with a change of editor, from this city to New York. This, with the similar removal of the Medical and Surgical Reporter some six months ago, and our own removal of our editorial office, makes the third exit of prominent medical journals from the "Quaker City" within a short time.

It may be wondered by the profession as to the cause of these changes

in location from the former medical centre of Philadelphia. Personally we have nothing to attribute it to except a lack of financial support from the medical and pharmaceutical houses of the home city, but we believe that this is the active cause with the other publications mentioned. In this respect there are notable exceptions, but to a large extent home manufacturers fail to support home medical journals in Philadelphia.





TONICS IN CONVALESCENCE.

With Special Reference to the Nutritional Effects of Vibratory Electrical Administrations by the Author's Method.*

BY S. H. MONELL, M. D., BROOKLYN, N. Y.

The treatment of headaches and neuralgias by means of rapid mechanical vibration, and the successful treatment of deafness and tinnitus aurum by an instrument projecting vibratory motion (massage) into the internal ear by means of sound waves, have received medical attention within the past two or three years. Rapid mechanical vibration, growing out of slow manual massage was suggested by Dr. Taylor in 1862, and since then has been employed to some extent, chiefly for the relief of pain in chronic affections and for its admitted power to improve nutrition. The chemico-physics of vibration relate to the transmission of motor energy to the vital tissues, and its transformation in them to chemical energy, resulting in increased oxidation and elimination of the products of waste.

A very considerable advance upon mechanical methods which deal with motion alone is to be found in electrical vibrations—in pulsating currents—which impart not only molecular agitation to the semi-solid and fluid tissues of the body, but something also besides mere motor-energy, which manifests itself in distinctive physiological ways, which we can recognize and appreciate, although we are still ignorant of what an elec-

tric current is. In the form of general faradization, for instance, we secure the combined effects of vibratory motion and an electro-therapeutic energy of a decided kind. Dolbear asserts (1893) that "electricity acts primarily upon molecules; that it disturbs their arrangement, shakes them apart, so to speak, and permits a new and better arrangement of them in morbid states." As long ago as 1777 we find Cavallo recording the belief that "electricity assists that innate endeavor by which nature tends to restore the sound state." To this useful function I shall now devote a few moments consideration.

If it is the first consideration of therapeutics to prevent disease, it is certainly of almost equal importance to repair its ravages. It seems to the writer that on too many occasions we are content with relieving pain, reducing temperature, carrying our patients through acute crises, operating brilliantly, or employing chiefly those palliative measures to which the limitations of our science unfortunately often restrict us. The rest we are prone to leave to nature. Indeed it has been well said that the "triumphs of medicine thus far have been in alleviating pain and in the prevention of disease, rather than in the cure of actual and active morbid processes."

But to all classes of cases—the child delayed in resuming its mental

*Described in Times and Register, September 9, 1893.

and physical training for future work, the son or daughter about to enter business or society, the business man in enforced detention from his active interests, the workman losing his needed wages, the wife or mother on whom the home depends—to all these alike the period of convalescence, of reconstruction, possesses an enormous material importance.

The sequelae of acute and short-lived diseases often prove more tedious and disastrous to the patient than the initial invasion. States of anemia, of deficient innervation, of organic and functional debility, of lessened tissue resistance, are created which unfit the individual for the duties of life, or render undue exertion dangerous; and out of which the slow processes of imperfectly-aided nutrition conduct him with faltering and leaden step. Relapses occur which renew and prolong anxiety, and when recovery is complete (?) there may or may not be the fullest possible restoration of anatomical integrity and the processes that maintain sound health. I need mention no more than the frequently protracted convalescence from typhoid states, from influenza, from scarlet fever, diphtheria, dysentery to call to the mind of the observant practitioner an endless procession of illustrative cases. So, too, in many chronic cachexias, whether the cause is removed or not, "vitalization of tissue is what these patients need." They need fortifying against toxic attack. For obvious reasons the specialist, surgeon and consultant, does not usually concern himself with hygienic and general measures directed to the ultimate removal of the effects of a disease which no longer exists, or of a cause which he has employed his special skill to eliminate. This is the province of the physician, and in a great measure his success in practice will be proportioned to the care with which he finishes up his cases.

It is now my intention to pass over the familiar tonic agents, because we all know them, and to speak of one of great value, but as yet too vaguely appreciated in general practice. It

is one of the curious phases of medicine to-day that it often reserves the aid of electricity till all else has failed, till organic lesions have obliterated nerve cells and nerve fibres, both functionally and structurally, and then demands that electricity, to prove its power, shall in effect "reconstruct an organized animal tissue from its ashes." I shall not debate the question of whether this medicinal agent can create something out of nothing—life out of local death—for only its opponents seem to expect that; but it is my purpose to refer in brief to one of its humbler yet still valuable properties. Says a prominent teacher of therapeutics: "One characteristic and almost invariable effect, due to electric stimulation of the peripheral nerves and their end-organs, is the improved nutrition of the patient. It is a matter of common observation in a clinic where the poor are treated by electricity alone, and in a great variety of methods, local and general, that they make a rapid increase in weight and general health, irrespective of the progress which may ensue in the disease for which they are under treatment." Indeed, the latter may be an incurable one, but we can often treat the patient when we cannot successfully treat the disease, and even in such cases the results may be exceedingly gratifying. Phthisis in its first and second stages is in point.

In a recent paper read before the neurological section of the American Medical Association, Dr. Rockwell emphatically states: "It has always seemed to me that the most important thing in the use of electricity in medicine, the fundamental idea upon which all its therapeutics is based, is its nutritional power. It is this idea which, in connection with Dr. Beard, I enunciated many years ago, and upon which I have based almost everything I have said or written upon the subject since." My own experience of several years devoted especially to the uses of medical electricity has afforded me ample proof of the correctness of the above views; and I may say in passing that I value the services of this agent far more for its utility in a thousand practical

every-day cases than for its power to occasionally benefit an advanced stage of some rare and incurable lesion of the central nervous system.

In the widening range of currents now offered to the expert in electrotherapeutics there is an opportunity to select our method according to our case. Local applications for specific local purposes are not here referred to by the author, although certain local methods extend their influence into the general nutrition; but of the effects of what is known as general electrification, whether by galvanic, static, sinusoidal or faradic currents, I propose to speak particularly. They are all valuable tonics. In convalescence they may be considered alterative, tonic and restorative, capable of doing excellent service unaided by drugs, and more directly in the line of hygienic and climatic influences. If bodies in low states of health are found to be negatively charged, then the positive charge (which is the rule in health) derived from the static machine is in the nature of a change of climate, and in fact is quite often as beneficial. The pre-eminent place in nutritional effects must be allowed to the constant galvanic current when the central nervous system is principally at fault, but when the debility is rather muscular, circulatory or functional, then my preference is for an interrupted current capable of producing a powerful impression on the peripheral nerve filaments and stirring to their depths the trophic centres. The induction apparatus which I designed a year or so ago, and made by the Kidder Manufacturing Company, is excellently adapted, by its ease of adjustment and manipulation, to general faradic treatment. But in September, 1893, I described a new method of administering an interrupted (oscillating) static current, and it is this, method originated by me, which I employ in the large class of cases requiring an energetic re-invigoration of vitality. Administered without the removal of any of the patient's clothing and involving no tedious technique or bathtub apparatus, I nevertheless regard it as an efficient substitute for the d'Arsonval high frequency bath, for

electric baths in general as given in this country, for the Kellogg sinusoidal application, and, for the most part, for general faradization. If direct muscle massage is indicated the static spark is demonstrably one of the most effective methods of producing it, and we have but to add its local influence to the general administration to secure nutritional alterations of a pronounced character. Regarding the muscular contractions produced by the local spark as a gross massage of the tissues it is considered that in the general vibratory administration of a rapidly alternated potential we subject the constituent particles of the tissues to an insensible molecular massage, the benefits of which are apparent in the vaso-motor system; in better circulation, in increased excretion, in better oxidation, better appetite, better digestion, better sleep, more cheerfulness, more vital energy, in short, in an increased functional stimulation and general progressive improvement. This is just what we want in convalescence from acute prostrating diseases; just what we want also in every case of lessened tissue resistance when restorative measures are indicated and are practicable.

Mr. B—, age 30, spare build, nervous temperament, excessive smoker, occupation sedentary, consulted the author December 5, 1893. Had been out of bed but one week since an attack of pneumonia. Presented evidences of great debility. Came especially for electrical treatment of his right arm, which was in a state of fatigue paralysis from long-continued excessive use. Apart from his local needs he was submitted to general static treatment. My case book shows that on December 18, after nine sittings, he had gained six pounds in weight and "100 per cent. in sense of well-being" and energy. Under regular treatment by nutritional electrization his convalescence rapidly proceeded, despite his immediate return to his desk employment, until with practically no other exercise than that afforded by the static massage given intercurrently with the general administration he became more athletic than at any previous time. While his muscular

strength and endurance were being developed to a high state it was remarked that his pallor gave place to that color of health which is usually conferred only by outdoor life. In fact, the effect of sunlight vibrations had been simulated by the vibrating electric current, which Tesla declares he will turn into sunlight if he can only make the vibrations fast enough. This complexion effect I have frequently noticed and it is a very remarkable and suggestive one. Mr. B— was under treatment for his arm for three months. His general recovery of vigor was apparently established in half that time. It is unnecessary to follow the details of his improvement, but during the course of the three months I had a number of opportunities to demonstrate the quick corrective influence of vibratory static electrization in temporary functional derangement. An instance or two may be cited: January 6, 1894, Mr. B— called at 5 o'clock P. M., stating that he had been obliged to work all the preceding night, and, as usual, all day. To use his own expression, he felt "bunged up and wanted some static." Fifteen minutes of vibratory potential alternation removed entirely his sense of fatigue and imparted something to the tissues, which (whatever electricity is) had a sustaining effect besides the mere restfulness. On the eighth he reported that he went home, "slept like a top and awoke next day feeling finely." At another time he appeared at my office with acute myalgia from sitting with a draft on his back all day during repairs to the building where he was employed. The usual general electrization, with counter irritant short sparks to the affected muscles entirely corrected the myalgia and restored his customary sense of well-being. Recent lumbagos generally yield to static electricity in from one to three sances.

November 28, 1894, Miss W—, convalescent from intermittent fever and still having recurring chills, was referred to me for quick restoration, if possible. She informed me that she had engaged to deliver an important lecture in about a week, and was ex-

ceedingly anxious to get her strength back, so she could do it. She could barely sit up half the day, and her voice tired so easily that to use it for talking to an audience was out of the question. Nevertheless, assured of her co-operating as fully as possible in our effort to hasten recovery I began to give her two half-hour nutritional treatments daily—one in the morning and one at the time of usual exacerbation. She was placed in a reclining steamer chair on the static platform and enjoyed perfect rest while being treated. Anti-malarial remedies were also pushed. On several occasions a vigorous spark application seemed to abort a commencing chill. Her vocal cords were also treated with a static induced current. The results were most happy. In twenty-four hours she was making visible progress. My record of December 17 is as follows: "Miss W— has felt entirely recovered for several days; needs no more static. Two treatments daily for a week, with a second week of one treatment per day, restored her quickly from a condition of extreme debility. She was continued upon a course of iron and quinine to prevent relapse. Four months later she reported herself in uninterrupted health.

The profound restfulness and comfort produced by vibratory potential alternation elicits many expressions of satisfaction from patients. Employed conjointly with other indicated therapeutic and hygienic measures in debilitated states I know of no method of electrical treatment preferable to it in many cases. In either acute exhaustion, fatigue from worry and work, brain fog, or more chronic conditions of debility, neurasthenia and anemia it is extremely useful.

Two years ago I reported a case of nearly lifelong chorea in a single lady now 52 years old, and prior to my treatment extremely neurasthenic, anemic, emaciated and weak. She has been under occasional observation since my report, and has held the decided benefit obtained during her two months static treatment. Mr. B—, from whom I recently heard,

also informs me that he has remained in splendid health. So much for the permanency of effects in these cases.

While at times a patient will be found who does not seem to respond readily to the tonic influence of general electrization, yet this is no more than must be said of other time-tried agents, which will fail us repeatedly. I have found general electrization to be particularly disappointing when the condition known to the laity as biliousness is present, even in so mild a degree as to cause scarcely a noticeable malaise. A torpid liver will defeat a static machine single-handed, as it were; and, until the portal circulation is unloaded and proper means employed to regulate hepatic action, the patient will hardly respond happily to any tonics, either of the *materia medica* or electrical currents. At least this is my experience repeatedly. From a large number of cases of all sorts I will now cite two instances of the power of a vibratory, high potential, high frequency electrization to correct in a single application an acute exhaustion, and without any of the reaction which may follow alcoholic or drug stimulants.

November 29, 1895. Mrs. D—, aged 45. On the 24th had a severe diarrhea, which lasted three days; since then some diarrhea, total anorexia and great prostration; could scarcely walk from the car to my office, and was assisted by a relative. Prescribed suitable remedies, but also at once gave her fifteen minutes of vibratory positive electrization. It toned up her strength so that she got home easily, and the improvement which began immediately increased steadily throughout the afternoon. As it was several hours before she procured and commenced taking the internal remedies, the restorative action of the electrization could not be attributed to them. I speak of this particular case because she was requested to observe the effect of the static application very carefully and report to me the result.

The following case is also interesting, by way of comparison: Mrs. J—, neurotic, subject to the disturb-

ances of the menopause, has occasional attacks of what may, for lack of better diagnosis, be termed spinal hyperemia. The pain from occiput to lower dorsal spine becomes intense; movement of the head is unbearable, and she generally spends a day or more in bed. Four years ago when similarly troubled she was treated by labile applications along the spine of a mild, rapidly-interrupted primary induction current, and after a month's treatment had no return of the symptoms until lately. Last week the pain appeared again, and I this time applied a stable galvanic current with an electrode at each terminus of the affected region, and tested both Lowenfeld's advice as to polarity and the reverse. There seemed to be no difference in effect; as is the case in many theoretical reasonings about current direction. More than a half hour was devoted to the seance before the patient was sufficiently comfortable, but relief went on gradually and for several days she was free from the distress. The next time it recurred (which it usually does after fatigue and excitement) I resolved to try the effect of my vibratory method. Sparks and ordinary static applications had previously proven less efficacious than coil currents. December 19, Mrs. J— stopped at my office on her way to a reception, which she was very anxious to attend, but her spinal hyperemia had suddenly developed and threatened to prevent her pleasure. She was given twelve minutes of positive potential alternations, with speedier relief than the galvanic had afforded. She hurried away before relief was absolutely complete, but it became so soon after she got into the open air. She attended the reception, and afterward said to me: "Doctor, that static is a marvel; I never had a twinge, but felt finely all the evening."

One of the most gratifying exhibitions of the invigorating properties of this current I ever witnessed was in the case of a patient just out of bed from typhoid fever, and only able to mount the static platform by being partly lifted up to it. After the

third seance he stepped up to the chair unaided and gained strength visibly at each administration for several months.

In infantile marasmus, and in all cases of childhood debility amenable to tonic treatment (and diphtheretic prostration is a typical case in point) the infant can be held in the mother's arms upon the static platform and subjected to general electrization without alarm or conscious sensation of any kind, and without undressing. In this respect this method is unique among electrical applications, and may be employed with inestimable benefit.

In chlorotic condition, amenorrhea and derangements of schoolgirls, especially if a legacy from some earlier illness not yet outgrown, the nutritional value of electricity is of very great importance. It is vastly more useful, I repeat, when freely employed, as it should be in these cases, than when reserved for advanced stages of lateral sclerosis and spastic paraplegia. It is a sovereign tonic in the debility of old age, for the same reason that it serves us in convalescence. If individuals in general, of any age, were "finished up" through complete convalescence to the fullest possible restoration of strength by those whose skill was not found wanting in the acuter stages of disease, there would be less prevailing anemia, less neuralgia, less "nervous prostration," less dysmenorrhea, less headache and less poor eyesight in men and women; less hysterics, less dyspepsia, less disappointment in life, less surrender to the invasion of microbes, less catarrh, less phthisis, less insanity, less crime, less suicide.

I am accordingly an earnest advocate of nutritional remedies during convalescence, and in every depressed state where they are admissible. Not second in value to cod liver oil, the hypophosphites, phosphorus, iron or arsenic, but a useful adjunct to them all will be found the administration of some form of medical electricity.

Another phase of the subject may be said to relate to the effects upon

the human organism of the poison of grief. Grief and shock, from a medical standpoint, are conditions admirably considered in the following citation from the Medical Record of late date: "Recent medical observations show that the physical results of depressing emotions are similar to those caused by bodily accidents, fatigue, chill, partial starvation, and loss of blood. Birds, moles and dogs, which apparently died in consequence of capture, and from conditions that correspond in human beings to acute nostalgia and 'broken heart,' were examined after death as to the condition of their internal organs, and it was found that the nutrition of the tissues had been interfered with, and the substance proper of various vital organs had undergone the same kind of degeneration as that brought about by phosphorus or the germs of infectious disease. To urge work, study, travel, the vain search for amusements, is both useless and dangerous. For a time the whole organism is overthrown. Readjustment comes slowly. Sorrow, grief and all great misfortunes should be regarded as conditions similar to acute infectious diseases, which they resemble in result and, later, as convalescence from such diseases. Seclusion, rest, sleep, appropriate food, fresh air, sunshine, interests that tax neither mind nor body, these are requirements in this class of illness."

To the writer's therapeutics for this class of cases should be added general electrization. No one informed of its nerve-toning properties and nutritional effects could withhold from these patients a remedy equally indicated with sunshine, diversion and rest. I have had the opportunity of corroborating its effects in tranquillizing overwrought emotions, and in the profound melancholia of sorrow. Also in severe shock, two cases of which I recall very distinctly, and my views of the value of nutritional, sedative-tonic electrization have been confirmed by personal experience in a large number of instances. It is more rational and satisfactory to all concerned to

treat intense grief as a disease and shorten its duration by the efficient use of electricity than to leave the

patient to time and circumstances to outgrow it.

865 Union street.

ELECTRICITY IN AMENORRHEA.

Dr. Panecki, in the Therap. Monatsch., lets the profession know that the faradic current is the most successful means of treating amenorrhea. The poles should be allowed to act inside the uterus. The current can be increased at each sitting, and

the treatment required, ranging from five to thirty. The doctor had them all. One was a married woman, treated eighteen cases and cured them all. One was a married woman, aged 31, who had periodical headache, etc.

Calcutta Med. Rep.



Current Medical Literature.

INFLAMMATION OF THE MIDDLE EAR OF INFANTS.

Dr. A. Hartman (*Deutsche med. Wochenschrift*) gives the results of investigations of this subject in the Institute of Infectious Diseases, Berlin:

1. Post-mortem examinations and examinations of the ears of living children establish the fact that 75 per cent. suffer from inflammation of the middle ear.

2. Inflammation of the middle ear can nearly always be determined by an otoscopic examination.

3. The symptoms of the otitis media consists of restlessness, elevation of temperature and loss of weight. Sometimes these symptoms are not present.

4. Very often the symptoms of otitis media are connected with bronchopneumonic processes. Probably both processes are due to the same process, viz., aspiration.

5. Death can result in cases of otitis media, slow bone atrophy, or from an extension of the micro-organism into the cranial cavity (meningitis), or into the blood (septicemia).

6. The inflammation of the middle ears of infants must receive treatment suitable for the varying conditions.

—Calcutta Med. Rep.

CHANGES IN THE RESPIRATORY ORGANS IN CARBOLIC ACID POISONING.

Leon Wachholz reports two cases of suicidal poisoning with carbolic acid in which post-mortem examination showed, among others, changes in the respiratory organs. That carbolic acid occasions certain anatomical changes in these organs has long been known, but the explanation of

such changes, however, has been unsatisfactory. To elucidate the question the author undertook a series of experiments on animals, from which he draws the following conclusions:

1. Carbolic acid is absorbed into the blood, whence it is violently eliminated by the kidneys, occasioning necrobiotic changes in those organs.

2. It affects the respiratory organs in the same manner as preparations of mercury do the bowels.

3. The course of the poisoning in man and warm-blooded animals differs in that in the latter the period of excitation predominates, while coma and paralysis develop in man at the outset.

—Przegląd Lekarski.

THE MICROBE OF SCURVY.

Testi and Beri (*Gazz. degli Osped.*) have succeeded in isolating from a piece of scorbutic gum a micro-organism, which they believe to be the cause of scurvy. The microbe stains in all the aniline dyes resists Gram's stain, is perfectly round, and generally united with one or more of its kind. Its culture renders gelatine fluid, and gives rise to a sawdust-like deposit. Inoculation of these cultures into guinea pigs and rabbits gave rise to fever, and the necropsy showed hemorrhagic stains in various parts of the body, and nodules of connective tissue new formation. Experiments were made in four cases, and in three out of the four the above mentioned results were obtained; in the fourth case the authors attribute their negative results to the fact that the patient had improved considerably under treatment. The diplococci found by the authors differ considerably from any that are usually present in the oral cavity of man.

—B. M. J.

THE CONTAGION OF MUMPS.

Le Courrier Medical gives some interesting information concerning mumps. The incubation period varies from eighteen to twenty-two days. It is especially contagious during this period, but is also contagious for some time after cure. The exact length of time has not yet been determined. The parotid and testicular fluids and also the blood appear to contain a certain pathogenic organism, but as yet this point is unsettled. Hitherto the results of inoculation with this special microbe have been negative. Frequently the disease begins with tumefaction of the submaxillary glands and a severe angina. Sometimes in metastatic orchitis the swelling begins with an epididymitis.

A NEW TREATMENT OF KERATITIS WITH HYPOPYON.

Zirm (Wien. klin. Woch., October 31, 1895) refers to the intractable nature of infected corneal ulcers; he considers pus in the anterior chamber to be an invariable result of septic inflammation of the cornea. The ulceration usually begins quite superficially, and the hypopyon forms an index of the penetration of the micro-organisms into the deeper structures. It is well known that these organisms, particularly staphylococci, have great power of resistance to antiseptics, surviving even the application of 1 in 1000 corrosive sublimate. Hence stronger measures, such as scraping, excision and the actual cautery have been adopted for their destruction. Even these have met with but variable success, and where they have stopped the disease they have often been the cause of irreparable damage to the cornea. Zirm has often noticed that the good done in the effort to overcome the disease has been more than counterbalanced by the injury resulting from the means employed. He instances the secondary glaucoma resulting in many cases from Saemisch's method of paracentesis, for which he himself has substituted the older operation

of lancet puncture, except in the case of interlamellar abscesses. The new treatment for corneal ulcer with hypopyon is the use of a 1 per cent. solution of silver nitrate. Zirm discovered the value of this in an intractable case, which had only got worse under daily and nightly washing out with sublimate. He found that touching some warty granulations of the conjunctiva with Ag.NO₃ solution resulted in great general improvement; continuance of the treatment led to rapid healing of the ulcer, the cornea being left in better condition than he had ever seen after a similar case. He gives notes of in all seven cases which he has treated by this method, all of which made speedy and complete recoveries, often after all other means had proved unavailing. Leber has shown that disturbance of the growth of pathogenic cocci in the conjunctival sac puts an end to their penetration into the deeper tissues. Zirm believes that his method inhibits their multiplication in the sac, and so leads to a natural healing of the ulcers without fresh loss of substance and that all the hitherto adopted energetic operative and antiseptic measures will now be given up as dangerous. He claims the following advantages for his procedure: 1. No new disturbances are introduced. 2. Further progress of the disease is at once cut short. 3. An ulcer allowed to heal naturally terminates favorably. 4. The method is extremely simple, and the course of the disease rendered shorter and much more favorable thereby.

—British Med. Jour.

TREATMENT OF TAPEWORM.

Prospero (Sperimentale, Anno 49, No. 26) speaks strongly of the value of pelletierine (an alkaloid prepared from the pomegranate) in the treatment of the two larger varieties of tenia. He administers it in doses of 20 cgr. of the sulphate (Merck) with 25 cgr. of tannin in syrup, to be followed by an aperient next morning. Extract of male fern is unreliable in its effects, may be poisonous, and is

not easy to get pure. For the ankylostoma thymol is the best vermifuge. In one of the author's cases proglottides of the tenia mediocanellata were voided through the mouth, and that without any severe vomiting. The tenia in this case presented an uncommon pathological appearance in that several of the proglottides were fenestrated in a scalariform fashion. This peculiarity has occasionally been observed before, and is supposed to be due to the action of the intestinal juices on parts of the worm where the external protective coating has been worn off. Pelletierine is costly, but therapeutically it gave the best results in the author's hands.

—British Med. Jour.

VACCINATION VIRUS VAN- QUISHER.

The above is the name of a patent medicine which is being exploited in England as "rendering all vaccination safe," that is, free from all ill-effects. The medicine has to be taken before vaccination. By the time vaccination has been performed, the remedy will have entered the blood, and, so says the promoter, "will be there, as it were, to meet the germs as they enter, and quickly kill them. Thus the diseases are clearly prevented, as the germs never get the smallest chance to begin their nefarious work." But it is further insisted upon that "the medicine does not in any way effect pure vaccine lymph, and the benefits of vaccination are not, therefore, in any way lessened or interfered with." It is surely a matter of pride for our day and generation that so distinguished a man as the discoverer of this remedy has arisen to round out and supplement the work of the great Jenner.

—Boston Med. and Surg. Jour.

SERO-THERAPY IN TUBERCULOSIS.

The interest in sero-therapy which has been brought about during the year by the success of the antitoxin treatment of diphtheria, has led to attempts at sero-therapy in many affections, some of the attempts having a rational basis, and some not. Among these attempts may be mentioned the employment of the blood-serum of animals supposed to be immune to tuberculosis, such as horses, asses, etc. Systems of treatment based on such supposed immunity have been carried out by Professor Maragliano, of Genoa, Dr. Paul Paquin, of St. Louis, and others. Although favorable results have been reported for these, as for all other new methods of treatment for tuberculosis that have ever been exploited, the results on eliminating the personal equation of their sponsors cannot be said to be very brilliant. The practice of reporting "cures" in cases of a disease which progresses so slowly as tuberculosis within a few months after the beginning of any treatment cannot be too strongly condemned.

With regard to the treatment by "anti-phthisin," a serum which is claimed by its advocates to be a kind of tuberculin refined in some manner so as to be free from the dangerous liability of disseminating the disease which tuberculin has been shown to possess, it can be said that up to the present time we have no satisfactory evidence of its value. In laboratory experiments the results have been good, and good beginnings are reported to have been made in clinical use of the remedy; but in regard to this we must again repeat that the chronicity of the disease, and the tendency to relapse are so great, that no observations have been recorded covering anything like a satisfactory length of time for judgment.

—Boston Med. and Surg. Jour.

German and Italian

Translated by DR. F. E. CHANDLER.

DOUBLE CONGENITAL LUXATION OF THE HIP, RACHITIC SACRUM, DOUBLE GENU-VALGUM, DYSTOCIA, CESARIAN SECTION. RECOVERY.

DR. LEFEBRE, OF THE DOUL-
LENS HOSPITAL.

Translated from the *Annales d'Orthopédie et de Chirurgie Pratiques* by
Dr. F. E. Chandler.

Obstetricians give the diminution of the diameters of the pelvis as one of the most common causes of dystocia. This modification is sometimes attributed by them to rachitis, but it seems to me that they have nowhere sufficiently insisted upon the congenital malformation of the pelvis.

It is generally admitted nowadays that in congenital luxation of the hip (called by Bouvier, forty years ago, malformation of the hip), there is often an atrophy of the pelvis.

It is by no means the case that all women suffering with this affection cannot give birth to children normally, but these women are certainly more liable to dystocia, because of the unequal development of the lower limbs and of the pelvis itself.

In certain cases an oblique oval form of pelvis is produced, in others the concomitant rachitic malformation is an important factor.

It is a case of the latter type that I wish to discuss.

A. Duceval, now aged 28 years, living in Beauval (Somme), was born

of poor parents. Her mother died of pulmonary tuberculosis. Her sisters and brothers enjoy good health and are of medium height. Our patient is only 1 m. 45 cm. tall, or below the average. The upper limbs are fairly developed, while the lower ones are affected in several ways.

There is a flattening of both plantar arches and a double genu-valgum. In addition, if we examine attentively the two coxo-femoral articulations, we see that the great trochanters are situated four cm. from Nelaton's line. The ischium, the great trochanter and the anterior-superior spine of the ilium, instead of forming a straight line, only give rise to an interrupted line, or perhaps better an open angle, with the great trochanter at its apex.

Movements of abduction are nearly impossible, a phenomenon which is produced in congenital luxation of the hip.

We cannot suppose that it is here a question of a pathological luxation, since the lesion has never caused the patient any pain. She has never been bed-ridden, and does not now, nor has she ever, noticed any pain or stiffness here, and, finally, she has never been the victim of any traumatism at this point.

If we make our patient walk, we notice that she has the claudication or lameness characteristic of congenital dislocation of the hip; nevertheless this lameness is here less marked than is often the case, because of the relative immobility of the femurs; an immobility explained by their slight movement of abduction.

Around the hips of our patient there exists a ligamentous apparatus, which is very solid and capable of resisting the upward motion of the femurs during locomotion.

In spite of all these physical disadvantages, A. Duceval became a mother. Her menses made their first appearance at the age of 21, or very late. She became pregnant when 25 years of age, and had no fear as to the issue of her pregnancy. (We may add that her intelligence has kept pace with the evolution of her organism.)

On March 6, 1894, she perceived the first pains of delivery; six hours later, the membranes ruptured spontaneously. My distinguished confrere, Mr. Mercier, physician at Beauval, was summoned to the patient. An examination convinced him of the absolute impossibility of a normal issue to the case and he called me in consultation, after informing me of the difficulties to be expected.

I found a uterus greatly developed, extending four fingers' breadth above the umbilicus. I still heard the fetal heart beats, although twenty hours had elapsed since the first escape of the amniotic fluid. Finally, I made a digital examination.

Finding it difficult to reach the vulva with the patient lying on her back, with her legs extended, I had her flex her thighs on her pelvis. Only in this position, by the way, was coitus possible. What was now my surprise at finding a bony tumor at the entrance of the vagina. This tumor was formed by an incurvation of the sacrum, and approached so closely to the os pubis as alone to furnish a cause of dystocia. The vagina was thus divided into two compartments; the anterior one, vulvar, and the posterior one, uterine.

In this latter I was unable to reach the cervix. The bony prominence could not be displaced, so I was convinced that the application of either forceps or cephalotribe would be a physical impossibility. The pelvic contraction was of nearly five centimeters.

The only rational resource was the cesarian section, but there was no hospital, no decent place to which I

could have the patient transported. I was in a dirty hut, and the only bed the patient had was an old straw mattress, full of holes and not even a sheet to cover it.

Under these conditions and with an imitation of antisepsis, I performed the operation on March 7, 1894, at 9 o'clock, P. M., with the skillful aid of M. Mercier, and the assistance of M. Protat and of M. Delahaye, pharmacists, the latter administering the chloroform.

I made a vertical incision in the linea alba, as in laparotomy. When the peritoneum was opened, the uterus presented. I incised this from top to bottom, and the child presented spontaneously, as I may say, during a uterine contraction, which came on the moment the aperture was sufficiently large. A second contraction expelled the placenta through the same opening. Leaving my hemostatic forceps in place for a moment, I sutured the uterine wound with catgut. I took care while doing this to place my threads near together, so as to render my suture water tight (étanche). Before closing the abdomen, I could see the blood escape per vaginam.

I closed the different layers of the abdominal wall with a single suture. I dressed the wound with iodoform powder, iodoform gauze and absorbent cotton, the whole being kept in place by an abdominal bandage.

Unfortunately the child had died in spite of our rapid preparations, and all attempts to resuscitate it were fruitless.

We tried rhythmic traction of the tongue, insufflation, artificial respiration, and, finally, flagellation.

I saw the patient the next day and found her in fine condition, although on account of atony and consequent distention of the bladder, I was obliged to pass a catheter. After this, the bladder took on its normal tonicity, and a recourse to catheterization was never necessary subsequently. No fever was present.

On March 9, two days after the operation, the patient had an elevation of temperature, 39.9 C. She complained of a painful swelling of the breasts and an ascent of milk. The

stomach was distended, but not more painful than it would have been in any lying-in woman with uterine colic. I administered a cathartic.

March 10, fever abated; anorexia still persists; tongue heavily coated, taken altogether, the general condition is satisfactory.

Sequelae simple. On the 10th day I removed the abdominal sutures, and had perfect union by first intention.

On the fifteenth day, and in spite of my advice, the poor woman got up, her belly being supported by the most rudimentary kind of body bandage only, consequently, to-day, she has an eventration, constituting a second and smaller abdomen, which makes at this point a hump similar to the one given Mr. Punch.

Looking at the profile of this woman with her bandy-legs, double luxation, the hips and the different stigmata of rachitis, one cannot help asking how it was possible for her to conceive. Yet she did and has again, for while operating, I did not think of the possibility of a second pregnancy, otherwise I should either have removed the ovaries or performed Porro's operation. To-day she is in the second month of a new pregnancy, which poses new problems to us.

Ought we to allow it to go on? Shall we make a second cesarian section at the end of her pregnancy? This time I would suggest to the person having the case, that he guard the woman against all future complications, by suppressing, like Porro, both uterus and ovaries, or by performing complete ovariectomy.

To conclude: Congenital malformation of the pelvis independent of rachitis and deviations, properly so-called, constitutes a cause of dystocia.

In women afflicted with congenital unilateral or bitateral luxation of the hip it is imperative for the obstetrician to note carefully the different pelvic diameters.

In cases of total narrowing of the pelvis, I consider that cesarian section is to be preferred to all other methods of procedure.

Cesarian section is not as grave as embryotomy, a blind operation, rendering the patient liable to lacerations, to punctures from bone splint-

ers, to rupture of the uterus, and requiring the sacrifice of the child's life.

It permits, also, in the same operation to put an end to ulterior pregnancies by ovariectomy or uterine castration.

HYPNOTIC SUGGESTION IN PEDIATRICS.

According to Dr. Berillon (*Revue Med. de Louvain*), the diseases of children in which the influence of hypnotic suggestion is well established may be divided as follows:

First. Psychic troubles occurring in the course of acute diseases, particularly insomnia, agitation and nocturnal delirium; some functional troubles, such as uncontrollable vomiting, incontinence of urine or of feces which may occur in the course of the same diseases.

Second. Functional difficulties concomitant with nervous affections; chorea, tics, convulsions, anesthesia, hysterical contractions and paresis, hysterical hiccough, blepharospasm, nocturnal incontinence of urine.

Third. Psychic troubles, such as irresistible onanism, onychophagra, precocious impulsive tendencies, nocturnal terrors, somnolence, kleptomania, pusillanimity and the manifestations of morbid emotions; troubles which are most often found associated, and which their tenacity causes to be regarded, and justly, too, as stigmata of mental degeneration.

Fourth. Mental troubles which may be considered as complications of various neuroses (chorea, hysteria, epilepsy).

ENURESIS NOCTURNA.

Dr. Strumphy (*Allg. Wien-Med. Zeit.*) says that this is often due to a mechanical cause—the weight of the abdominal viscera upon the bladder. His treatment is to place a pillow under the child's pelvis so as to throw the weight of the intestines upon the diaphragm.

In all of twelve cases treated by Dr. S., a cure was obtained from the first night. In six weeks the patients could take their normal decubitus.

We have just used Dr. S.'s sugges-

tion on a little boy of six years, where all methods of treatment usually employed had been tried in vain. In the two weeks he has been under treatment he has not wet the bed once.

WEIGHT OF NEW-BORN CHILDREN.

Prof. Pinard called the attention of the Parisian Academy of Medicine (Seance of November 26, 1895) to the influence which the amount of rest taken in the last weeks of pregnancy has on the weight of the new-born child.

His paper notes the comparative weight of the children born, in his "service," to women who had worked steadily until the time of their delivery and of those children whose mothers had been able to take a rest previous to their confinement.

The children of the latter were heavier, healthier and more viable.

HYDRASTIN AND HYDRASTININ.

Dr. Jules de Vos (Archives de Pharmacodynamie) has a long article on the physiological action of these two drugs.

The author's historical researches have brought to light only the most contradictory mass of evidence as to their action. His own numerous and patient experimental researches have given the following results:

Neither hydrastin nor hydrastinin act as emenagogues.

Mammals easily take both drugs and without symptoms of accumulation.

These substances have no unfavorable influence on the digestive functions, appetite and gastric or intestinal digestion; neither on the composition of the urine nor on the intra-organic exchanges of assimilation; the weights of the animals experimented upon remaining constant.

No important lesions were found, even after chronic intoxication; no degeneration or alteration, renal or other, excepting only a slight congestion of the abdominal viscera.

The favorable therapeutic action of the hydrochlorates of hydrastin and

hydrastinin in hemorrhagic uterine affections as affirmed by the clinicians could not be explained by the laboratory experiments.

NEW TENICIDE.

Dr. Newton chanced to give the following preparation to a patient, who had an unsuspected tenia, and who passed it with its head in four days after commencing treatment:

R Iodide of potassium 2.25 gm.
Iodine 0.75 gm.
Water30 gm.

To be taken in ten-drop doses, t. i. d.—
Medical Times.

Subsequent experiment bore out his supposition as to the tenicide action of the above.

AROMATIC COD LIVER OIL.

M. Duquesnel adds one gramme of ol. eucalypti to 100 gm. ol. morrhuae to remove its nauseous taste. The taste of the eucalyptus alone remains.

Dr. Carlo Pavesi gives another method:

Take 400 grammes of fish oil, 28 grammes of roasted and ground coffee, 10 grammes of powdered animal black; warm the whole on a sand bath at 60 C., for 15 minutes, in a corked mattress; remove the mixture from the fire; allow it to stand for two or three days, shaking occasionally; filter through paper.

The oil thus obtained is limpid, amber colored and has a pronounced odor and taste of coffee.

—Revue Med. de Louvain.

OXYCYANIDE OF MERCURY AS AN ANTISEPTIC.

MM. Ch. Monod and Macaigne presented a paper on this subject, and these are the conclusions they came to:

A 5 per 1000 solution of oxycyanide of mercury was shown by experiments to possess an antiseptic value always equal and sometimes superior to a 1 per 1000 sublimate solution, and while fully as easy to handle as the bichloride attacks neither the hands nor the instruments of the surgeon.

These conclusions are based upon a hospital practice of over four years, and also upon a long series of labora-

tory experiments, which have shown that the oxycyanide will fully as well, if not better than corrosive sublimate, kill a developed culture or sterilize an infected object.

These experiments were made with hospital dusts, containing various microbes: bacillus pyocyaneus, streptococci, bacteria coli, and especially a bacillus closely resembling that of anthrax which had spores capable of resisting a temperature of 100 C.

Although they never had any grave accidents of intoxication with the drug, still MM. Monod and Maigne think that it should never be used in injections, when it is to be feared that a portion of the liquid be retained or remain for any length of time in contact with absorbing surfaces.

—Revue de Louvain.

SHORT NOTICES FROM EVERYWHERE.

A NEW DRESSING POWDER.

M. Picque (*Annales d'Orthopedique*) showed the Societe de Chirurgie of Paris a patient whose wounds had been dressed with a new product, which seems destined to replace iodoform in antiseptis. This product is called traumatol and is an iodide of cresol.

Experiments made with it by Dr. Leon, chef de clinique at the St. Antoine Hospital, have shown the superiority of this product as an antiseptic over iodoform. It has the advantages of being inodorous and of not irritating the mucous membranes. Used by M. Picque in his practice for over a year, and by M. Perier, at Lariboisiere, they both affirm that traumatol gives the best results, and, although employed in the same doses as would be iodoform, it causes no toxic symptoms.

CHRONIC MASTITIS OF TRAUMATIC ORIGIN IN A MAN.

M. J. Hobbs (*Progres Medical*) represented before the Society of Bordeaux a sailor, 50 years of age, of robust constitution and without pathological defect, who had received three months before in the right mammary region the shock of a bar-

rel which weighed in the neighborhood of 100 kg.

Immediately after the accident there appeared a voluminous tumor of the right breast.

The skin had an ecchymosed color. The first days there was fever and severe pain.

Under treatment with moist compresses and of lead ointments the tumor diminished rapidly, but without wholly disappearing. Now, three months from the time of the accident, the right breast is voluminous and presents a plurilobular induration 7 cm. long, 5 cm. wide and about 3 cm. thick. The patient suffers only during the examination.

This case is comparable with those described by Hughes Peraire, and especially with that one presented quite recently at the Academie de Medicine (Sept., 1895). Traumatism was the sole cause of the mastitis; this was followed by acute inflammatory symptoms; after these came hypertrophied induration, which now shows no signs of retrogression. Termination by complete resolution is exceptional. Suppuration rarely takes place.

TREATMENT OF ACTINOMYCOSIS WITH HYPODERMIC INJECTIONS OF POTASSIUM IODIDE.

Rydygier (*Nowiny lek.*, Nos. 8 and 9, 1895) publishes two cases of actinomycosis, one of which was in a physician. Operative treatment and internal medication with NaI and KI, both without result. After the sixth day of his illness, treatment with hypodermic injections of KI, together with the internal use of the iodides, was commenced. Two to four syringefuls of a one per cent. solution at intervals of 8 to 14 days were used. In the first case a perfect cure was obtained in two months. In the second case only the parts surrounding the navel remained infiltrated. In cases of actinomycosis of the walls of the stomach, subcutaneous injections of the one per cent. solution without the internal administration of the iodides was sufficient for a cure.



GONORRHEA TREATED BY ALKALINE INJECTIONS.

The fact that the gonococcus develops best in an acid medium, and does not do so in an alkaline fluid has suggested the idea of treating the disease in this way. The method is especially successful when the alkali is combined with an antiseptic, as sublimate. Injections are made three times a day with a solution containing 1 per cent. of sublimate and about 6 per cent. of liq. potass. (5 per cent. caustic potash). Bicarb and citrate potash are at same time given by the mouth. Rapid cures are obtained.

—Courier Med.

CONVULSIONS AND TETANUS FOLLOWING BITE OF THE TONGUE.

The case occurred in a woman taken to the Maternity Hospital, at Rochefort. She was in a condition of eclampsia on her arrival. She presented several contusions of the lower limbs and deep bites of the tongue. Under chloral injections the convulsions ceased. The child was delivered alive. At the end of a week the woman complained of violent pain in the head; symptoms of tetanus followed, and she died in 48 hours. In this case the spores of tetanus may have existed in the mouth, but it is more probable that she became infected during the journey in the cab, in which she was conveyed to the hospital.

—Courier Med.

LEMON JUICE AS A HEMOSTATIC.

Burton mentions a case of abundant hemorrhage from the nose which was at once stopped by injection

of one part of juice to four of water. In a case of h matemesi , after failure of other means, lemon juice pure stopped it instantly. It has also been successful in intestinal hemorrhage.

—Courier Med.

WHAT CAUSES CARDIAC WEAKNESS IN INFECTIOUS DISEASES.

The normal state of the circulation depends as much on the activity of the heart as on the integrity of the vaso-motors. The noxious external influences modify in a variable manner the functions of both. The elevation of blood pressure is the measure of the heart's strength. Lowering of pressure below a certain limit indicates insufficient activity of one or both.

The bacillus pyocyaneus and the pneumococcus both paralyze the vaso-motor centre in the cord, and thus cause fatal disturbance of the circulation; the peripheral vaso-motors and the vaso-motor centres of Goetz remain intact.

The B. pyocyaneus sometimes modifies the rhythm and activity of the heart. The pneumococci do not interfere with the heart, which preserves its functions and maintains the blood pressure for a certain time in spite of the vaso-motor paralysis.

In pneumonia the paralysis of the vaso-motor centre in the cord plays an important part in the circulatory disturbance. The danger of pneumonia to a weak heart lies in the fact of the overcharge thrown on the right side; in other cases by the fact that the heart is unable to keep up the blood pressure. The circulation thus becomes sooner insufficient than in a case where the heart is normal.

—La France Med.

TREATMENT OF EPILEPSY.

A new treatment for epilepsy is advocated by Dr. Poulet, in the *Bull. de Therap. Gen.* He has found it succeed in cases where bromides alone or in combination had failed, and not only bromides, but also picrotoxin, stramonium, borax, etc.

The association of bromide of potassium and sulphate of eserine, which is his method, has rapidly cured the cases in which it was used. As a general treatment in this disease he recommends the plan of Bechterew, which is as follows:

R.—Adonis Vernalis (leaves). 2 to 3¼ gr.
Infused in boiling water....180 gr.

Add
Potass. Bromid..7.50 to 11.25 gr.
Caffeine0.12 to 0.18 gr.

The dose is from 4 to 8 teaspoonfuls in the day.

Bechterew has had great success with this method.

Jouin has been using tablets of thyroid extract (0.45 grm.), one, 4 to 8 times per day, in cases of uterine fibroma. He has three times observed diminution of hemorrhage, and twice partial diminution of the tumor.

—*Bull. Gen. de Therap.*

MONUMENTS TO PASTEUR.

Many cities of France, and Dole, his birthplace, especially, intend erecting statues to Louis Pasteur. An international subscription will shortly be opened to erect in Paris a monument that will be worthy of the great scientist. The Board of Directors of the Institute Pasteur has taken the initiative and intends to form a committee of patronage, with the Presidents of the Senate and of the House and Ministers of Foreign Affairs at its head.

Progres Medical.

DEATH OF DR. CHARLES FAUVEL, OF PARIS.

"A great physician," says the *Progres Medical* of Dec. 21, "as the grand monde and the demi will have it, has just died. He was very notedon the boulevard and in the wings of the opera and much noticed in our daily papers. His physiognomy, so good and so expressive, was to be found almost anywhere, from the prospectus of Vin Mariani to the advertising columns of the select *Monde Moderne*."

How is that for sarcasm?



Current Surgical Literature.

T H MANLEY, M. D., New York, Editor

HYPODERMIC INJECTIONS OF CALOMEL.

By Dr. Morel Lavallee.

This author has employed with great satisfaction the hypodermic method of giving calomel.

The calomel is blended with sterilized oil, and every precaution observed to prevent infection with the needle.

He uses a long, strong needle, and injects the fluid deeply into the tissues of the right loin.

He has had no suppuration or nodosities follow. One of his patients was riding and enjoying the sports of the chase while under his cure.

His maximum dose of calomel by this plan is five centigrammes—about one grain.

By this method the patient is spared the pain and inconvenience of stomatitis, and, besides, the action of the drug is more energetic and decisive.

This form of administration is reserved for specific disease, or when it is necessary to quickly charge the system with the medicament.

—Rev. Therap., 1 Dec., 95.

THE RADICAL CURE OF LARGE INGUINAL HERNIA.

By Tillaux.

This author, in a short, but instructive clinical lecture, presents the operative consideration of voluminous inguinal hernia. The subject of his discourse was a man of 51 years, who never was conscious of hernia until a year previously.

The hernia rapidly enlarged and became unmanageable to truss pressure.

It had now attained the size of an infant's head, and was suspended in a sack specially made. With the exception of occasional colicky pains, and pains in his back, when the support was removed, he had little inconvenience. But it was unsightly. He never had any symptoms of strangulation. The surgeon observes here that "the more voluminous a hernia the less danger there is of accident from strangulation," and states that it is exceeding rare in large hernia. The opening of the external ring here was sufficiently capacious to admit four fingers after mass was reduced. It is stated that the cure of these hernia is extremely tedious, dangerous and unsatisfactory in some individuals.

The technique of operation is fully set forth. It is advised in operating on a case of this description to proceed with great caution and deliberation in order not to injure vital structures and make a complete operation. The plan of Bassini was adopted. Special attention was given to the management of the extended omentum and sac. The infundibulum was left in the scrotum, and an effort was made to restore the inguinal canal.

—(Revue De Therapeutique, Med. and Chirurgial, 1 Dec., 95.

Note by translator:

Most all voluminous hernial extrusions are irreducible, or largely so. The dangers attending operations on them, for radical cure, are very considerable, and the results are not highly satisfactory when operative success follows. It is remarkable that this celebrated surgeon, M. Pr. Tillaux, should regard those massive

ruptures as rarely the seat of strangulation, which is certainly far from correct.

Within this year '95 two cases of strangulation in mammoth hernia have come under my care; one in an old man, who had more than three feet of gangrenous intestine. Hernia was inguinal type. Died within an hour after operation. Another case occurred in a woman of 32 years of age. She had a vast femoral hernia, with strangulation of three days standing. The extended mass was highly inflamed. Death on fifth day after operation. It is evident from M. Tillaux's description of Bassini's operation that its technique varies in different countries.

As a whole, this class of ruptures belong to a very grave order, indeed, in which radical cure is not satisfactory, if expedient at all, and yet danger of strangulation constantly menaces the patient.

T. H. M.

TREATMENT OF STERCORACEOUS FISTULAE.

(Neuvieme Congres Francais Chirurg.)

Treatment of stercoraceous fistula and artificial anus, was the theme submitted by Le Pr. Le Dentu, at above meeting.

The conditions of the above disorder requiring operation are: Small and large fecal fistulas. The actual cautery will usually close small ones in the autoplasmic operations. For pyostercoral fistulas we must commence by a thorough disinfection and liberation of all adhesions. Depuytren's enteratome serves a useful purpose in some of these cases. Lateral enterorrhaphy, however, properly performed, is to be preferred to all other measures in many of these. A mixed or compound method may be necessary in various instances.

If the separation of both ends of the intestine is complete, or if the inferior end is closed, enterectomy with the triple row of circular suture is satisfactory. But, when for various reasons this is impracticable, entero-anastomosis is a precious resource.

Reverdin, of Geneva, has succeeded

in curing a rebellious stercoral fistula in the rectum by making an iliaca anus, to serve until union was complete.

For intestinal obstruction Bouffier, of Nantes, advises, when a malignant neoplasm is the cause, an entero-anastomosis. Circular resection of the bowel, with end to end anastomosis, gave him one recovery and one death.

A SUBSTITUTE FOR MURPHY'S BUTTON.

MM. Duploy and Cazrrie propose to substitute for the Murphy button a perforated creased piece of metal, over which both ends of the intestine are to be fixed and retained. They had remarkable success in their experiments on dogs with the new device, which, perhaps, for prudential reasons, is not fully described. It is said that the thing requires no special skill to place it; the operation is rapidly performed; gases and intestinal fluids readily escape, owing to large calibre of apparatus, and it is said to have been invariably passed within the third or fourth day.

Gazette Hebdom, Dec. 3, 95.

CIRCULAR SUTURE OF THE INTESTINE.

By A. Bier.

Of late there has been almost no end of the various sutures offered for closing the intestine, with a view of obviating the drawbacks of the Lambert and Lambert-Czney suture. In order to definitely determine the relative value of the various sutures recommended for intestinal surgery Bier made 70 experiments on animals, and finally was led to the conclusion that there is none devised yet equal to the Lambert. This was the opinion of Bergman and Hahn as long ago as 1882. On man, Bier practiced this suture 14 times with no mortality. He declares that the non-success, usually comes from want of skill in the surgeon or the gravity of the patient's condition demanding interference.

—Arch. fur Klin-Chirurg., No. 49.

OPERATIONS FOR SUB-ACUTE APPENDICITIS.

M. Roux, of Lausanne, has seen 300 cases of appendicitis, with 95 operations.

His reflections and conclusions are as follows:

In cases of suppuration the abscess is always behind the appendix. Spontaneous cure results by perforation of the bowel and draining off through this route, or by resorption of the pus. In the latter event the pus becomes caseated, calcified, or reduced to a sterilized fluid. The lesions of the appendix itself are most varied. Calculi are found imbedded in it; it may be contracted, obliterated or perforated, empyemic or dropsical. But often no lesion at all is found. He would advise operations only when recurrence was frequent, and especially if there were symptoms definitely pointing to perforation.

(Le Mercuri Med., Dec. 12, 95.)

SUTURE OF THE VEINS AFTER ACCIDENTAL LACERATION OF THE VEINS IN OPERATIONS.

M. Ricard speaks of the great advantage of suturing the large veins after accidentally dividing them, particularly the femoral or axillary. It spares the integrity of the vessel, obviates gangrene, and accelerates union. It should be done with a fine Lambert suture. The leak is stopped, the current of the blood re-established and full function restored.

(Revue De Chirurg, Dec. 17, 95.)

ELECTROLYSIS FOR THE SURGICAL TREATMENT OF STRICTURES.

New York Medical Journal.
BY J. A. FORT, M. D.,

Professor of anatomy in the Ecole Pratique of the Paris Faculte de Medecine.

It affords me great pleasure to have the honor of being allowed through the kindness of your president to present to you a new instrument which I have devised and called "electrolyser," for the surgical treatment of strictures by the "linear electrolysis" method.

It is a well-known fact that electrolysis has been discarded on account of the imperfect instruments which were used. My electrolyser has all the advantages of the urethrotome and none of its inconveniences. It looks like a small whip, of which the handle contains a metallic wire projecting from the end which connects with the flexible part. This instrument, being first introduced into the urethra, is connected with the negative pole of a continuous current battery, and the positive pole is connected near the affected part, on the front of the thigh or over the pubes; then the current is turned on.

The operation, which is almost painless, requires 30 seconds (on an average), with a current of a strength of at least 10 milliamperes, as indicated by means of a galvanometer. The electrolyser remains perfectly cool during the operation. In nearly all cases there is no bleeding, or but very little. The urethra is made aseptic before and after the operation, in order to prevent fever. I never allow a sound to remain permanently in the urethra for any length of time after the operation.

Usually the wound resulting from electrolysis heals quickly without any local treatment whatever, and often the patient can attend to business immediately after the operation.* In nearly all cases I pass a sound the third day after the operation, also the day after. I instruct the patient to pass a sound, No. 22 or No. 24 F., every month and every other month.

With the urethrotome, which cuts blindly, the surgeon cannot ascertain the degree of denisty of the tissue of the stricture. On the contrary, by means of electrolysis, which merely produces a molecular destruction of the stricture, although the instrument remains cool, I have been able to demonstrate that there are two classes of stricture—"soft and hard." Hard strictures are in the proportion of one against five soft ones.

The time required to perform the

*When the wound does not heal I merely prescribe injections morning and evening, with one part of hydrozone to 20 parts of water.

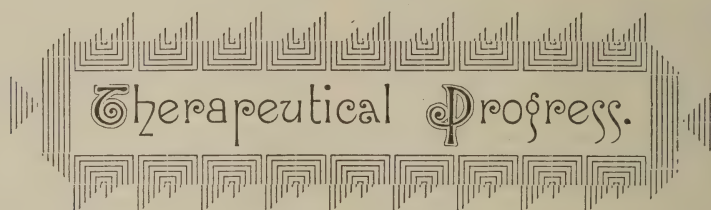
operation varies with the density of the stricture. Some strictures are so hard that they cannot be successfully operated upon by electrolysis.

If my American colleagues who are familiar with the French language are willing to refer to one of my books entitled *Traitement des retrecissements par l'électrolysis linéaire* (this book can be procured at the library of the Academy of Medicine), they may find it quite interesting, as it will enable them to understand the improvements which have gradually been introduced in the applications of electrolysis to surgery during the last 15 years. They will also understand how I have applied

electrolysis to the treatment of strictures of the urethra, uterus, rectum and esophagus.

Up to date I have performed in Europe 135 operations on strictures of the esophagus (recorded in my book), and with the exception of those which were caused by malignant growths of the wall of the esophagus all recovered.

It has been my good fortune to meet here some leading surgeons who are authorities in the treatment of strictures, and I am very grateful to them for their kindness in giving me the opportunity to demonstrate the advantages of my method in operating upon some of their patients



BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

AMIDO-ANTIPYRINE.—Resembles antipyrine, but more soluble.

AMMONIUM EMBELATE.—Harmless, taenifuge. Dose, 6 grs. fasting, followed by castor oil.

AMYLENE HYDRATE. (Dimethylethyl) carbinol tertiary amyl alcohol.—Limpid, colorless, hygroscopic liquid with penetrating ethereal odor resembling camphor and peppermint. Soluble in A., E., C., 8 parts water. Anodyne, hypnotic. Dose, 45 to 60 minims. Whooping-cough in children, 3 to 4 min.

ANALGESINE.—Synonym for antipyrin.

ANASALPIN.—Synonym for anhydrous wool fat.

ANEMONIN.—From *anemone pulsatilla*. Small, white, acicular, inodorous crystals. Soluble in A., E., sparingly in water. Anti-catarrhal, sedative (whooping-cough, etc.) Emmenagogue. Toxic in large doses. Maximum daily dose 3 grs.

ANHALONIN. (Alkaloid from *anhalonium lewinii*.)—Resembles strychnine and brucine in its action.

ANTHRAROBIN. (Desoxyalizarin.)—Phenol derivative, allied to chrysophanic acid. Yellowish white powder, insoluble in water and dil. acids. Soluble in glycerine, in 5 parts A., and in alkaline media. Substitute for chrysarobin. Apply in 10 per cent. ointment or solution.

ANTICHOLERIN.—Cholera antitoxin solution, clear brown, viscid liquid. Injected in muscular tissue of stomach of cholera patients.

ANTIKAMNIA. A white microcrystalline odorless and tasteless powder nearly insoluble in W. but readily soluble in A. and E. Antipyretic, analgesic and anodyne. Dose: 3 to 10 grs. in powder or tablets, taken with a swallow of water or wine.

- ANTI-KOL.** Antipyretic, analgesic, anodyne. Dose: 3 to 10 grs.
- ANTINERVIN.** (Salicylbromanilid, Salbromalide.) Mixture of ammonium bromide 1, salicylic acid 1, and acetanilid 2. Sedative, antipyretic, analgesic. Dose: 3 to 8 grs.
- ANTINONNIN.** (Orthodinitro-cre-sol.) Insecticide, fungicide, and wood preservative.
- ANTIPHTHISIN.** A purified and improved tuberculin, produced by Prof. Klebs. Now under examination clinically. Obtained only for trial, from makers direct. Not for sale.
- ANTIRHEUMATIN.** Compound of methylene, blue and sodium salicylate. Dark blue crystals soluble in W., A. Antirheumatic. Dose: 1 to 1 1-2 grs. in pills every 2 or 3 hours.
- ANTISEPSIN.** (Asepsin, Mono-or Parabromacetanilid.) Colorless prismatic crystals. Insoluble in cold water. Slightly soluble in A., and in hot water. Antiseptic, antipyretic, sedative. Dose: 3 to 10 grains. Said to be dangerous. (Not to be confounded with a mixture of zinc sulphate, zinc iodide, thymol and boracic acid called antiseptine.)
- ANTISPASMIN.** (Sodium Salicylate and Narceine-Sodium.) White somewhat hygroscopic powder, soluble in water. Antispasmodic sedative, hypnotic. (Whooping cough, convulsions, cramps, etc.) Dose: 1-2 to 1 gr. 3 times daily.
- ANTITHERMIN.** (Phenylhydrazin Levulinic Acid.) White powder. Insoluble in water. Antiseptic, antipyretic, analgesic. Should be used with caution. Dose: 3 to 10 gr.
- ANTITOXIN.** Product of metabolism in blood serum under the influence of specific bacilli.
- ANYTINS AND ANYTOLS.** Products of the action of sulphuric acid upon oils. Anytins are soluble in A.; anytols in W. They serve as solvents for oils, camphors, etc. The names are patented.
- APIOL.** Green, liquid alcoholic extract of parsley seeds. Dose: emmenagogue, antiperiodic, etc., 2 to 9 min., 2 or 3 times daily. Antiperiodic 15 to 45 times daily.
- APYONIN.** Yellowish crystalline compound used in ocular surgery in same manner as pyoctanin.
- ARBUTIN.** Glucoside from uva ursi. Long, colorless, bitter needles, soluble in water. A. Insoluble in E. Diuretic. Dose: 10 to 15 grs. 4 or 5 times daily.
- ARECOLINE.** Alkaloid from areca nut, alkaline liquid. Soluble in water, A. E., C. Powerful anthelmintic and heart poison (resembling muscarine). Veterinary practice. Dose: 1-15 to 1-10 gr.
- ARGENTAMINE.** Ethylene-Diamine Silver Phosphate Solution.) 8 per cent. solution of silver phosphate in ethylenediamine. Colorless alkaline liquid turning yellow on exposure. Antiseptic and astringent, but not coagulating proteids. Uses same as corrosive sublimate (1 to 4000 solution.)
- ARISTOL.** (Dithymol-diodide formerly incorrectly termed Annidalin, which see.) Bulky reddish, resinous powder, of a slightly aromatic odor. Insoluble in water, G., soluble in E., C., oils, slightly in A. Decomposed by heat and light. Antiseptic dressing. Substitute for iodoform. In etherial, oily or fatty vehicles or fatty powder.
- ASAPROL.** (Abrastol, Calcium Betanaphthol-Alpha-Mono Sulphonate.) Grayish white odorless powder. Decomposed at 122 degrees F. Soluble in 1 water and 2 A. I., insoluble in E. Antiseptic, antipyretic, antirheumatic (diphtheria, rheumatism, etc.) Applied externally in 5 per cent. solution. Dose: 3 to 12 grs. 4 or 5 times a day.
- ASBOLINE.** Prepared from pine-root. Yellowish oil consisting principally of pyro catechol and its homologues. Antitubercular.

(To Be Continued.)

...Prescriptions...

FOR TAPEWORM.—Many years ago, Mr. J. H. Newington, of Tenterton, gave a patient the following mixture:

R—Potass. iodid.36 grs.
Iodi2 grs.
Aqua1 oz.
M. Sig. Ten drops three times a day in water.

An unexpected result was the passing of a tapeworm 11 yards long, and he has since given this same medicine in other known cases with success, as after the discharge there has been no return.

New York Med. Journal.

Herpes Zoster:

R—Boric acid.15 gr.
Glycerine, q. s. vaseline....1½ oz.
Cocaine hydrochlorate.
Extract of opium.each 5 grs.
Ft. pigment. The neuralgia following the eruption is best treated by Fowler's solution.—Kaposi.

GOITRE.—Good results have been obtained from the parenchymatous injection of 1-4 to 1 drachm of a mixture thus composed:

R—Iodoform1 part
Sulphuric ether.
Olive oilaa 7 parts
M.—Galle, in Revue de Laryngologie.

Lumbricoides:

R—Santonin.20 grs.
Podophyllin5 grs.
Sugar30 grs.
M. Sig. Divide into five powders; give one every four hours until it acts freely on the bowels. The dose of podophyllin can be varied according to the age of the child.—Deray.

TREATMENT OF SOFT CORNS.

—Mr. M. P. Miall, of Bradford, states that a concentrated solution of tannin, made by dissolving an ounce of perfectly freshly-made tannin in six drachms of water with the aid of gentle heat, gives immediate relief to soft corns if applied once or twice a day between the toes after washing. Tannin in powder is not quite so effectual.

British Medical Journal.

Chronic Alcoholism:

R—Tr. nucis vom.80 drops
Tr. gentian co.
Tr. calumb. co.each 2 oz.
Sig. a dessertspoonful to be taken in water before each meal.—Loomis.—London Med. Times.

Alopecia:

R—Ext. jaborandi fl.
Tr. cantharidiseach ½ oz.
Glycerin.
Olei vaselinieach 1 oz.
Sig. apply locally with a sponge at night.—Bartholow.

Pulmonary Tuberculosis:

R—Creasoti2 fl. drs.
Alcohol, rectificat17 fl. ozs.
Glycerin pur.8 fl. ozs.
Chloroform5 fl. drs.
Ol. menth. pip.2 fl. drs.
M. Sig. Tablespoonful in sweetened water before each meal.—Carosso, in la Medicine Moderne.

Parson's Local Anesthetic, according to the Medical Age, consists of:

	Parts.
Chloroform	12
Tincture of aconite	12
Tincture of capsicum	4
Tincture of pyrethrum	2
Oil of cloves	2
Gum camphor	2

Dissolve camphor in chloroform, add oil of cloves, and, lastly, the tinctures. This is credited with almost magical local anesthetic effects.

In Acute Cystitis:

R—Potass. citratis4 drs.
Sp. chloroformi2½ drs
Tr. digitalis80 drops
Infus. buchuad. 8 ozs.
Sig. Two tablespoonfuls three or four times a day (Fothergill). The following suppository may be introduced high up into the rectum:

R—Iodoformi1 gr.
Ext. hyoscyam.1 gr.
Ol. theobromae14 grs.
M. et ft. suppos. j.

—London Med. Times.

STRAIN FROM MUSCULAR EXERTION.—Tinct. iodini, liq. ammoniae and collodion, painted on with camel's-hair brush.

For Physicians' Wives

FOOD FOR YOUNG CHILDREN.

If a child, say about 2 years of age, is delicate, it does not want either cereals or potatoes. Milk with barley water, or a raw egg, well-beaten, with half a pint of milk. If it objects to drinking it, give it through a straw, and it will soon be looked upon as play. Never insist on children eating anything they dislike; if well managed they are most pliable. Example is the best coaxer. Take a glass of milk through a straw yourself some day, without a remark. A small piece of chicken with a bone and whole wheat bread may be given, or a little chopped beef or mutton, also beef or mutton broth. Milk should be given between meals.

—Household News.

WARM NIGHT GARMENTS.

When the air is cold and the weather inclement, it is the general custom to wear garments of extra thickness and warmth, and to sit round roaring fires. But on going to bed, what takes place? In 99 cases out of 100, people pass from the warm living rooms into chilly bed rooms. As if the sudden change from the extreme heat—for there can be little doubt that what with fires, gas and insufficient ventilation, people are in the habit of breathing an atmosphere the temperature of which is considerably higher than it should hygienically be—to excessive cold, is not sufficiently absurd, they proceed to divest themselves in thin linen nightshirts, and to consign their heated bodies to the cooling influence of unsympathetic sheets! Conventionality has habituated one to the custom; but a really serious contemplation of it cannot fail to make the

utter absurdity of the custom clearly apparent.

The Chinese, from whom many useful lessons have been learned by more civilized nations, can give us a wrinkle on this subject. John Chinaman sleeps in the same kind of clothes as he wears in the daytime, the easy and flowing garments to which he is addicted allowing of this without causing inconvenience. Western nations are not favoured in the latter respect, but still it would be quite possible to replace the airy nightshirt at present in vogue by some garment which, as regards warmth, was equivalent to the several distinct articles of clothing constituting the working dress worn by day. Dwellers in foreign countries invariably sleep in flannel garments, and the backwoodsman wraps himself in a stout woolen blanket, and defies the elements. They are sensible. The human frame should, undoubtedly, be clothed in woolen garments, for wool is a bad conductor of heat. Enveloped in flannel the body maintains a normal temperature, which is of the greatest importance. No sooner does the temperature fall than the action of the various functions becomes impaired, the nerves get out of gear, and the whole system suffers disorganization.

—Health.

SWEEPING AND DUSTING.

The wear of a carpet may be greatly prolonged by judicious treatment. The wise woman realizes this, and, by a little headwork and carefulness, lightens the demands on both her hands and her pocketbook. Her carpets are swept but once a week, and then it is done in this wise:

First, she covers the furniture as much as possible, especially the upholstered portions, and then strews the floor thickly with tea leaves and salt. The salt brightens the colors in the carpet, and destroys the moths, while the tea leaves gather the dust. Then she sweeps with the grain of the carpet, using a short stroke that covers only a little space. Her broom draws, not pushes, the salt and tea leaves up to a level with her feet, and so she continues until the whole room has been gone over.

The result of this careful sweeping is that not much dust has been set in motion to settle, later on, upon the furniture, and also that the sweeper's carpets greatly outlast those of her neighbors and yet always look bright and clean.

This same woman never uses a feather duster, as it does not really dispose of the dust, but merely removes it from one part of the room to another. Instead, she uses a large, soft dry cloth and shakes this cloth occasionally out of the window, being careful the while that there is no draught to carry the dust back into the room. After dusting, she occasionally goes over all the woodwork of the furniture again with a soft flannel cloth dampened with kerosene. This polishes the furniture up wonderfully, and if the windows and doors are left open for a little while after, all traces of the scent will soon disappear.

—Good Housekeeping.

CULINARY HINTS.

Onions and all vegetables can be cooked without odor by being put on in boiling salted water sufficient to cover the article to be cooked, and the kettle placed where they cannot boil again until tender. In rapid boiling the steam drives off with it the odor and flavor of the vegetables.

Whole wheat bread is made by pouring one pint of boiling water

warm; add one yeast cake, moistened in two tablespoonfuls of warm water and a teaspoonful of salt. Now add sufficient whole wheat flour to make a batter. Beat well and stand in a warm place for two-and-a-half hours. When light add sufficient flour to make a dough, knead well and form into one pint of milk, when luke-at once into loaves, put into French pans and stand aside again in a warm place for one hour. Bake same as white bread.

Cut-glass vinegar cruets may be cleaned by ammonia and warm water; after rinsing put in a little chopped potato and rinse again with clean water.

—Mrs. Rorer in Household News.

Somewhat along the lines of a diary is the record book now kept by so many mothers, of the "growth in grace" of their young children. One young woman, not only has the weights and measurement and first sayings of each child set carefully down, but at certain ages, with great regularity, the child's picture is taken to embellish the record book.

And then there are the memory books. How many trifling memories of European travel can be saved with little trouble, by those fortunate enough to go, and put into a kind of combination diary and picture book, which ever after will bring back with extra vividness the happy hours during which they were collected. These memory books of foreign travel are of the greatest interest to their owners. All sorts of "trifles light as air" have a place in them. Street-car tickets from all over Europe, labels of various sorts, five-cent photographs, steamer lists, menus, railway tags, pressed flowers and leaves, kodaks of friendly groups, and even hotel bills, make a motley collection, and bring fresh pleasure to eyes which may never again see the places of which they are reminders.

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EMBARRASSED RESPIRATION.

BY LOUIS LEWIS, M. D., PHILADELPHIA.



Abnormal breathing is experienced in a number of general morbid conditions, besides those in which the respiratory organs are directly concerned. It is a common symptom, ranging in degree from slight embarrassment to acute dyspnoea; and it is usually amenable to treatment directed to its cause. But it often defies control, or develops into the more intractable form of orthopnoea, when respiration can only be maintained in the sitting posture. These conditions call for urgent relief, independently of the disease with which we have to contend.

Embarrassed respiration may have its origin in the head, neck, chest or abdomen. Commencing from above, it is present in many cerebral affections, as in meningitis, epilepsy, apoplexy, concussion, compression, and sunstroke; and, above the level of the axis all lesions of the medulla oblongata inhibit the pneumogastric nerves, and so arrest the breathing altogether.

In the neck, dyspnoea results from external violence in the vertebrae. Here the spinal cord is most exposed to danger from without, as an open

space remains between the neural arches of the adjoining bones; and in addition, there is unusual looseness of the vertebral articulations, thus favoring the chances of displacement. Dyspnoea follows all injuries of the cord above the third vertebra, such as wounds, compression, tumors, sclerosis and caries; and it is always symptomatic of dislocations, and of all fractures that implicate the cord in this vicinity. Opposite the axis, it arises from any irritation of the phrenic nerves, which would impede the movements of the diaphragm, or from interference with the respiratory branches of the par vagum. Wounds of the phrenic nerves are more dangerous here than in the inferior cervical region, though dyspnoea may accrue from injuries below the level of the axis, where the middle expansion of the cord. Yet even if the cord be entirely divided below this, motion and sensibility will be arrested, but the breathing will continue for a time. Lesions or disease of the cervical sympathetic nerves or their ganglia also affect the respiration, and may excite bronchitis, pleurisy or pneumonia.

Inside the neck, any mechanical obstruction in the pharynx, such as foreign bodies and adenoid growths, pharyngitis, tonsillitis, and retro-pharyngeal abscess, may cause dyspnoea. It may originate in the larynx, from scalds, croup and laryngismus; oedema and spasm of the glottis; fibrous, cystic and papillomatous growths; and syphilitic, tuberculous and malignant diseases. Or it may be excited in the trachea, by accidental obstructions, inflammation, and by the pressure of a bronchocele from without, or other tumors within.

Outside the chest cavity, dyspnoea attends fractures of the sternum, ribs, and dorsal vertebrae, from external violence; wasting of the muscles and soft structures, as in phthisis; softening of the ribs, as in rachitis; rigidity of the ribs and sternum, through excessive deposit of lime; softening of their cartilages, through the want of it, and tonic spasm of the diaphragm and intercostal muscles, as in tetanus.

Inside the chest cavity, dyspnoea is associated with all diseases that involve the normal functions of the lungs, as "winter cough," bronchial asthma, and capillary bronchitis; pleurisy, pleurodynia, pneumonia, phthisis, acute tuberculosis, pulmonary collapse, oedema, embolism, cancer and apoplexy; effusions of fluid or air, as in emphysema, empyema, hydro-thorax, and pneumo-thorax; mediastinal tumors; and all cardiac affections that impede the oxygenation of the blood, as cyanosis, aortic aneurism, valvular diseases, and inflammation, hypertrophy and atrophy of the heart. (Pleurisy is sometimes co-existent with herpes zoster, thus even the latter disease may be characterized by dyspnoea.)

Between the chest and abdomen, any hinderance to the free action of the diaphragm promotes dyspnoea, as inflammation, diaphragmatic asthma and paralysis. In the abdomen proper, respiration is obstructed whenever the stomach is distended by food or flatus; it is a prominent symptom of ascites, peritonitis, pressure of ovarian or other tumors, wounds of the intestine, and gravid uterus; and the breathing may be

seriously inconvenienced in hepatitis, splenitis, and other disorders of the liver and spleen, owing to their close attachments to and intimate relations with the diaphragm.

Dyspnoea is more or less manifest in general diseases, as in hysteria, anemia, leucocythemia, oxaluria, pyemia, cholemia, Hodgkin's disease, albuminuria, diabetes and malignant scarlatina.

There is a striking similarity between the dyspnoea attendant on some morbid states and that which is incidental to poisoning by certain drugs and noxious vapors. In epilepsy, apoplexy, meningitis, uremia, coma and trance, it is stertorous; and it is of the same character in poisoning by alcohol, tobacco, opium, morphia, chloral, turpentine, benzine, and (after some delay) by nitro-benzine. In bronchial asthma, whooping-cough, emphysema, rabies, and trismus, it is paroxysmal and spasmodic; just such as occurs in poisoning by oxalic acid, prussic acid, cyanides, cocaine, gelsemium, and nitrate of silver. In the trismus of infants, the resemblance to strychnia poisoning may be further marked by the addition of opisthotonos. In syncope, shock, typhus fever, anasarca and cholera, it is tardy and laborious; as is usually observed in poisoning by lead and tartar emetic. In concussion of the brain it is shallow and feeble, like the results of poisoning by aconite. And in fatty heart, tubercular meningitis, and uremia, the breathing often has a gradually ascending rhythm, followed by a prolonged pause, and then a fluttering fall ("Cheyne-Stokes Respiration"), similar to the breathing after a poisonous dose of iodoform. This form of dyspnoea is nearly always fatal.

In croup and laryngismus, the breathing is grating and stridulous; in acute laryngitis, shrill and whistling; in capillary bronchitis, accelerated and continuous; in pleurisy and broken ribs, "catchy" and intermittent; in diphtheria, delayed and distressing with distension of the alae-nasi. In asthma, dependent on Bright's disease and other renal disorders, it is violent, and very apt to

be fatal; in lightning stroke and other electric shocks, it is deep and interrupted (though in fatal cases death is due to failure of the heart). In sunstroke and cerebral affections, it is moaning; in valvular disease and dilatation of the heart, sighing and gasping, but without stridor. In infantile disorders, a slow intermittent dyspnoea with long pauses suggests brain affections; when hurried and intermittent, capillary bronchitis is indicated; and, when it is rapid without intermittence, inflammation of the larynx or trachea. In peritoneal disease the breathing is mostly conducted by the muscles of the upper ribs; in pleurisy and pneumonia, by those of the abdomen.

Dyspnoea always occurs when there

is insufficient oxygen in the blood, which leaves it too venous; when there is excess of carbonic acid (which is only poisonous by its preponderance over the oxygen), and when carbonic oxide is present, which (besides being highly poisonous in itself), combines with the hemo-globin of the red corpuscles, and hinders their work as oxygen-carriers. Sulphuretted hydrogen likewise robs the hemo-globin of its oxygen. The inhalation of coal gas, marsh gas, fire damp, and methane, and the vapor from charcoal, lime kilns, brick kilns, and brewing vats, produce these effects; but persistent artificial respiration may resuscitate the victim, by eliminating the surplus carbon, and restoring the missing oxygen.

2011 Arch street.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION, WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERIMENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

PART XVIII.

THE COLORLESS BLOOD CORPUSCLE.

A fierce contest has been waged on the role of the leucocyte, in that deranged state of the system known as inflammation.

What purpose it serves under normal conditions is certainly doubtful, though in diseased conditions many claim for it important functions, which, indeed, must be conceded if it be admitted that the leucocyte and pus-corpuscle are identical.

Proof of this must be definitely established as a preliminary requisite, though with those acknowledged as distinguished authorities

on cellular pathology a wide diversity of opinion exists. The morphological characters of these two bodies are not so similar as to be readily confounded. The pus-corpuscle is more highly refractive, it is much larger, its centre is crowded with living matter, of a deep yellow color in most instances. Its protoplasm is finely granular, and its nucleus is indistinctly defined. If all pus corpuscles were phagocytes we should in all cases of acute, specific or other forms of suppuration, find them, under the microscope, in their natural state, or stained, packed with the various bacteria, but, as a matter of fact, this we never see as a constant occurrence, except with the

diplococcus of gonorrhoea, which is a feature, said by Niesser, to be its "invariable characteristic."

But the pus corpuscle possesses moderate ameboid movements when promptly examined in a warm medium, before it has parted with its vitality. It undergoes various changes in outline before its marginal, elastic layer loses its contractility, when, finally, as the defunct state sets in, the palsied walls of the leucocyte widely expand and it assumes a globular or nearly circular outline.

Now, if we send a feeble current of electricity through a fresh layer of pus corpuscles, their ameboid movements are momentarily increased, but if we delay until they all have assumed the circular form, no such movements can be provoked by the galvanic current. We fail to produce the same phenomenon or anything similar if we substitute red-blood corpuscles unless great caution is observed not to unduly expose or crush them. The liquor-purissimus is of a greater density than the plasma, or any medium employed for the microscopical study of the blood, and therefore the pus corpuscle thus shielded from undue pressure, and less vulnerable than the blood-disc, preserves its vitality longer, and in consequence we may note over a longer period those motions in its contour which are probably the death struggle of these bodies.

In the consideration of this question it seems to have been lost from sight that all living matter is endowed with contractile properties. The protoplasm of a corpuscle, a cell, or whatever else it may be designated, is its vitalizing element; but there are only a very few bodies that can be isolated in the living state, as it with protoplasmic bodies only found in the fluids of the body is this possible.

In life the study of the so-called fixed cells (the connective tissue muscle, the epithelia, if we except the ciliated in the oyster) it is quite impossible. The ameboid movement of the leucocyte may be observed in the living vessel, although it may be noted in a limited degree in all the

corpuscular elements of the blood. The change of outline which we observe in the freshly withdrawn pus-corpuscle, however, is entirely unlike it, and undoubtedly is nothing more than a mutation of life to death, the least visible evidence of vitality being before the work of decomposition begins.

In a preceding chapter it was noted that under the eye in the living vessel one could clearly see, especially in the vascular stroma of the pulmonary organs, the red-blood globules leave the lumen of the vessel, as well as the colorless, only in less numbers. Rollet, Klebs, Beale and Bastian attribute to the red corpuscle decided ameboid movements. Cohenheim and Donders believed that the red and white blood corpuscles left the vessel in response to different forces; the one inherent and the other extrinsic. They taught that the leucocyte left the bore of the vessel, through its own ameboid movement, becoming first fast to the walls, and that escape of the red-blood corpuscles succeeded only as a result of pressure of the blood current, as when the veins are engorged by obstruction. They regarded their exit as a simple filtration of a colloid substance, but it certainly is something more than this, or rather a living phenomenon, than a mechanical process, except when a part is the seat of impending mortification, as a limb, when all the elements of the blood leave their dead vessels and blend with all the adjacent tissues.

The cornea has been the battleground of investigators in deciding the role of the leucocyte in pathologic processes. This convex disc of hyaline tissue, being perfectly transparent and devoid of blood vessels, furnishes a suitable territory for observations. How could a part inflame or provide a theatre for blood changes which had no blood vessels? This will be a topic for later consideration; it is enough now to simply observe the fact, that, when the cornea does inflame all the corpuscular elements of the blood are found to be there. It has been affirmed that the leucocyte, at the first onset of in-

flammation here, leaves the neighboring vessel on the periphery, to do battle with the germs of invasion. But what becomes of them in the event of sudden subsidence of inflammation, when their evolution into pus-globules is arrested? Wagner tells us that they make their way into the lymph current and by this route re-enter the blood vessels.

Now this is entirely problematical and not proven.

If infective elements were thus thrown into the general blood current they would be caught in the fine pulmonary capillaries, and form the nuclei of infurtings.

The normal cornea has no vessels of sufficient calibre to convey blood corpuscles.

If it had, perfect vision would be impossible, but it has plasmic tracts, conveying the filtered plasma for the nutrition and vitality of this highly organized structure. On irritation the canaliculi in the areas involved undergo enlargement, in order to permit the advent of that process so indispensable for the repair of tissue and re-establishment of function. It is highly probable too, that according to the older view, at the seat of the inflammation, some of the nuclei are provided, which later mature as pus-corpuscles.

This latter theory received strong support by experiment on other non-vascular parts, through which it has been shown that in inflammation not only the migratory connective tissue corpuscles can become pus-globules, but also that fixed cells may become completely migratory and take on purulent changes. According to Strickler pus-corpuscles arise in various epithelia, partly by division and partly by endogenous formation, form connective tissue corpuscles and from muscle cells, etc.

Ranvier taught that the lining pavement epithelia of serous membranes, the blood vessels and lymphatics, the alveoli of the lungs, the glomeruli of the kidney, as well as the flat cells of connective tissue, under the influence of inflammation, return to their embryonic state. This is essentially Dr. C. Heitzman's view on the genesis of the pus-cor-

puscle. According to Koster the pigmented cells during inflammation of the lungs become migratory and appear within the alveoli.

From the foregoing discordant views among eminent observers it may be concluded that the leucocyte with other protoplasmic elements in some manner are actively concerned in local inflammatory states, its role, however, being rather a subsidiary one.

As to its being a phagocytic agent of great activity, there is much reason to doubt. That it engulfs bacteria or will gather up from the circulation particles of cinnabar, is no proof that it is a germicide.

The plasmodia of laveran are found imbedded in the fine reticulum of the red corpuscle, in malaria; besides, we know that the connective tissue corpuscle, equally with the leucocyte will encapsulate cinnabar; and if the pus-corpuscle was regarded as a lineal descendant or transformed leucocyte, we have abundant proof that the gonococcus preserves all its activity within its protoplasmic zone.

This I have noticed several times when gonorrheal pus has been prur stained, without passing the cover-glass through the flame. Movements of the germ were distinctly seen within the corpuscle.

The general characters of the leucocyte widely vary in different specimens of blood. In order to fully appreciate this distinction various conditions are necessary in preparing and mounting specimens. Pains-taking and preserving effort must be made, under a good light and a clear lens; moreover, it has been my experience that their behavior varies in the blood of different individuals. Their activity sometimes is most extraordinary. Here and there, in a capillary fork or terminal loop, we will see one moving slowly along, while the red globules flit by, with a flash-like movement. It finally seems to creep close to the side of the vessel, halt a while, and move on again.

In other places, two or three seem, as it were, glued by their sides to the vessel by a slender attachment.

The blood current as it sweeps by communicates to them a trembling, quivering motion. Shortly we will observe that one has changed its shape, when we will notice a spectacle, something like a boy dragging himself through a rail-fence; the leucocyte has become engaged in the wall of the vessel. One club-shaped projection has pressed out into the pericapillary space, while the remainder is yet within the vessel. Now, after a few moments, it has made its escape completely through.

When the capillary current has been artificially arrested; in various situations, where the corpuscles have been driven into a thickly packed group; now and again, we will see a violent commotion, a leucocyte will commence its antics, make furious gyrations, as though suffering from asphyxia or some irritant, keep them up for some time, unless the constriction is removed and the current again is liberated and moves on, when all this agitation among leucocytes suddenly ceases.

(To Be Continued.)

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number).

CHAPTER III (Continued).

Third. Mechanical Physical Causes.—A. Certain prolonged exercises, such as dancing and horseback riding, may be considered as mechanical causes predisposing to manualization—dancing, by causing a congestion of the uterus; horseback riding, in addition to this, by direct shocks on the seat, upper portion of the hips and friction of the organs of generation.

Schwartz (*loc. cit.* p. 6) says: The trot and short gallop often cause a loss of seminal fluid in persons who are unaccustomed to horseback riding or who are of extremely sensitive temperaments. This is especially common in women (*sic*).

b. The sitting posture or dorsal decubitus when excessively prolonged may also cause pelvic congestion and genital irritation favorable to the genesis of masturbation.

c. Deslandes (*loc. cit.* p. 514) says: It is a well-known fact that domestic animals, cats or especially dogs, have, by licking the sexual parts of young children, especially of girls, aroused from its torpor a sense that should have remained unawakened.

d. We cannot stop without calling attention to the erotic influence of some trades where the corporeal forces are brought into play, among others, those where the sewing machine is used.

The shock that the oscillatory movement of the pedal imparts to the lower portion of the trunk, the rubbing movement of the labia majora on the labia minora, with the resultant warmth, frequently cause onanism.

The leucorrhœa which is almost constant in these operatives, is generally the result of unnatural practices.

The sewing machine is not only a cause of masturbation, but it is also a means of it.

During a visit that I made one day to a factory of military clothing I was witness of the following scene:

In the midst of the uniform noise of some thirty sewing machines I suddenly heard one moving at an increased rate of speed. The girl operating this machine was a brunette of 18 to 20 years of age. While she automatically moved the garment she was sewing her face grew ani-

mated, her mouth partly opened, her nostrils dilated and the oscillation of her feet drove the pedals at an ever-increasing rate of speed. Soon her eyes closed convulsively, her eyebrows drooped, her face became pale, her head was thrown backwards, her hands and her limbs ceased their movement and relaxed, a stifled cry, followed by a long sigh, was lost in the noise of the workroom.

The girl remained without movement for a few seconds, then drew out her handkerchief, dried her temples, which were moist with perspiration, cast a timid, sheepish glance at her companions and recommenced her work.

With my guide, who had noticed my attention, I approached the operative, who blushed, dropped her head and stammered a few words of excuse even before her employer told her to sit back in her chair and not on the edge of it.

Just as I was leaving I again heard, but from another part of the room, a machine increase its rate of speed. My companion burst out laughing and told me that that was of so common occurrence that no one ever paid any attention to it.

B. SOCIAL CAUSES.

First. Wealth, which allows a sedentary and inactive life; which permits rest in feather beds in the warm atmosphere of a perfumed bed-chamber, and which furnishes an excess of succulent nourishment, frequently causes culpable practices by leaving women entirely to the play of their imaginations. Therefore, genital vice is met with oftener in cities than in the country, where hard work in the fields and in the open air consume more largely the forces of the worker.

If, nevertheless, it is just as common in the home of the poor as in the rich man's dwelling, it does not invalidate what I said above, for there are other forces which urge the poor girl in the same direction as her richer sisters.

Second. As a matter of fact, in the poorer classes it is the promiscuousness of the sexes and the too intimate family life

which cause onanism. As a child, the poor man's daughter runs about in the streets with boys of her own age or else is given to the care of some old woman, who pretends to take care of her for a few cents a week. If in either of these cases she has no opportunity of indulging her native and unhealthy curiosity she may be considered lucky!

When a half-grown girl she enters some workshop or factory; once there, equivocal stories, gestures and obscene words soon put her on the track. When, evenings, she returns to the chamber where the whole family grovel; where the father, more or less intoxicated, more or less besotten, does not have the least shame in giving himself up to his lascivious instincts before his children; where her brothers rub against her, often in the same bed, then she understands, and if a remnant of modesty makes her refuse the propositions of her companions or of the first-comer she no longer refuses herself that enjoyment which, under happier circumstances, she might still have been ignorant of.

C. INTELLECTUAL AND MORAL CAUSES.

Besides, the too assiduous cultivation of the fine arts, the study of tender and melodious music, the drawing of male forms and the constant company of young men, all of which are predisposing causes of manualization, are the following occasional ones:

a. The sight of lascivious pictures, such as the transparent playing cards made in Germany and Belgium, and the microscopic photographs which were so common a few years ago.

b. The sight of statues in voluptuous and impudic poses, as well as pictures of nudities.

c. Obscene conversations and gestures which awaken a fatal curiosity. The copulation of domestic animals.

d. Reading novels or books which over-excite the imagination cause lewd thoughts and hasten actively the corruption and depravation of morals. A. Schwartz (loc. cit. p. 8)

says: "How many young people of both sexes have been made slaves to onanism through novel reading."

e. Certain plays act in a more marked manner, although in one less generally known. After leaving the theatre and going to their rooms, under the influence of the drama they have seen played, the young girls commence to dream of like events happening, in which they play the part of the heroine; they love and are loved by a being whom they create, according to their fantasy. Following up their dream step by step, they imagine themselves married, after a thousand difficulties, to the object of their adoration, and insensibly give themselves up to some culpable maneuver.

f. Bad example, always contagious, has a prominent place among the moral causes. In schools, true hotbeds of infection, it is in company with their classmates that they commit their first fault which is later on followed by many others.

A culpable negligence in young ladies' boarding schools allows masturbation to be introduced there only too often. This practice, hidden from the impenetrant or blinded eyes of the teachers under the veil of friendship, may be carried to a scandalous extent. II The most intimate relations are formed under this specious pretext: one bed suffices for the two friends, and by unheard-of refinement young girls have been known to tear the thin epidermis which covers their lips in order to give each other bloody kisses so as to better prove their devouring love and fidelity. I

I cannot refrain from reproducing here a citation taken from Mereville de Pousan: III.

"Among the Franks, our ancestors, the height of education was to prevent the too free communication of the sexes, and not over two centuries ago it was thought to be the best possible proof of good breeding when a young and virtuous girl

was married to a strong and handsome youth.

"We have refined these customs somewhat, and I would not dare decide if in our modern marriages this last condition is now as possible of fulfillment as formerly, for our morals are so corrupt that it is no longer the men who are the most dangerous to the young girls." * * * "Who now could look askance at the sweet kisses of a sister or at the caresses of a lady friend?"

"Flee, young maiden, this poisoned breath, misguided by an error of nature, a fatal resemblance, an ardent imagination, Zulmis while covering thee with kisses imagined she is embracing her lover. * * * It is Sappho, thinking to grasp Paon in every object she meets. * * * Take care, this new delirium leads further than you think." * * * "But no; she has not even this criminal excuse. * * * Man, she would love you less and convinced of your sex she adores you more, etc."

"It is too late. Carried away by her confidence in the same sex, by the troubles of her senses, her youthful inexperience and her curiosity, she has nothing left for her husband; freshness, innocence, she has lost all, and the flower has faded on the stem. Finally, she, in her turn, goes to seek victims among her companion novices, and these soon prelude with solitary amusements these ridiculous combats."

"In vain nature rebels against the precocious pleasures and punishes by a painful existence the infraction of the first of her laws; nothing will bring them back to the path from which they have erred * * *."

Besides all this, there are the tutors and the servants, both male and female, who, trampling under foot their moral obligations, teach the most shameful practices to those entrusted to their charge. I could, if necessary, quote any number of facts from different authors—Tissot, Salzmann, Rast fils, Boerner, etc.; but I shall only mention the following case, which seems to me to be especially interesting. At Strasburg a certain tutor once abused most shamefully the confidence placed in

I. Dictionnaire des Sciences Médicales, Vol. XXXI.

II. Deux Amies, chapter I.

III. Historie Philosophique et Médicale de la Femme, etc., pages 62-63, Vol. II.

him. He had been engaged to give instruction to two little girls, and one day the elder of these surprised her mother by being unwilling to go to her lesson. The child hesitated when her mother inquired the reason, but finally told her all that the tutor had done to her. The mother, indignant, persuaded her daughter to go to him for one last lesson, watched the wretch and caught him in the act. I.

Finally, is it not of common occurrence to have nurse girls and even, sometimes, the mothers themselves, carry their stupidity so far as to handle the genitals of their nurslings to quiet their cries and calm their tears?

In the article already quoted from, the *Journal des Sages Femmes*, it is said that very young children do not always contract habits of masturbation by themselves. Often, too often, they owe it to the unqualifiable initiative and intervention of some other person. The part played here by the nurse is only too well known; but it is rare, I believe and hope, to meet facts like the following, which were told me by my father.

In a house where he was family physician was a little boy 15 months old who was nursed by a woman that had an insufficient supply of milk. Therefore, to calm the unappeased appetite and the tears of the little fellow, as well as to keep her place, she would, during the night "*pratiquer la succion des parties genitales*" of her suckling.

Horrible as this is, the following is more so. A little girl 5 years of age, having contracted habits of masturbation, gave herself up to it with a veritable frenzy day and night. Her mother had not been able to imagine any better way of preventing her daughter giving way to this habit so frequently than to promise that if she would give it up during the day she herself would intervene at bedtime, and she kept her promise, for she did not hesitate to realize it once before one of her friends who chanced to be present when the child was being put to bed.

All that we can say in regard to this case is that the mother was hysterical.

g. In some married women a frustrated project of alliance and the consequent hate they feel for their husband are also determinant causes of onanism. Forced to suffer the embraces of a man she despises or detests, the wife submits in silence but with repugnance, thinking meanwhile of him whom she would like to have near her and whom she loves secretly. Then, gradually, under the influence of these ideas, she substitutes in imagination her lover for her husband, thus committing a kind of moral infidelity. So far there is nothing to criticise, but later, when alone, she has the same dream once more and replaces the absent lover by licentious practices.

D. MIXED CAUSES.

These are, like many of those preceding, much more common than is generally supposed. Any and everything that prevents the woman from enjoying what nature intended for her may be grouped under this head.

The principal causes are: a. The impotence or indifference of her husband through coldness, age, etc.; b. Want of harmony between the copulative organs of the two sexes; c. Tardiness of the venereal spasm in some women; d. The wish of the male to see the pleasure he has, shared by his companion; e. Widowhood, or the long absence of the husband or lover; f. Want of comeliness or physical infirmities of the woman.

a. That impotence and indifference of the husband toward his wife will predispose her to masturbation, especially if she is young and passionate, cannot be doubted.

Is it not this involuntary abstinence which makes of the inmates of Oriental and Indian harems so many onanists, whose imagination, over-excited in every manner, is in constant pursuit of new methods of calming their erotic, forcibly-restrained passions?

When lasciviousness is joined to impotence in the husband the cause becomes still more active. Here is an example: A lyric artiste, very

much alarmed to find her voice losing its power and clearness, consulted us on the subject. Questioning her brought out the fact that she was married to a man much older than herself, and who had become impotent as the result of a hemiplegia. The husband, in spite of his infirmity, tried frequently to accomplish his conjugal duties, but with out other result than that of irritating his young and passionate spouse. Often after vain attempts at connection he gave himself up to "*des caresses linguales*" with his wife, intending not to balk her of a pleasure she most ardently desired. These attempts were unsuccessful and threw the singer into such a state of erotic enervation that she was obliged to calm herself by digital manipulations during her husband's sleep. It was from the time that she commenced these maneuvers that she noticed her vocal troubles.

b. If the male organ is smaller than normal, or, although normal, is in disproportion with the female organ; if the clitoris is too small or by a relatively common malformation, placed too high; in spite of the turgescence which in the erethism carries it downwards toward the penis, it cannot get a sufficient quantity of friction to bring about the voluptuous spasm. The woman in this case, usually well aware of the state of things, often tries to complete the operation herself or even asks her husband, lover or some mercenary of either sex, to bring about the venereal orgasm in her.

In support of this statement here is what I find in Roubaud: *

"A woman was so passionate that, not being able to satisfy her desires with her husband (she was obese), she paid a third person to commit masturbation on her in spite of the principles and precepts of religion and honesty with which she had been surrounded from her youth.

"Often, after the marriage has lasted a certain time, when the first passion has calmed, the man, who wants pleasure, has no longer the desired sensations in sexual congress, the excitement being wanting. He then tries to awaken the dying

flame by making his companion take lascivious poses, those powerful aphrodisiacs for beings who have gone through the whole list of ordinary and unnatural pleasures. Then connection is had a retro, modo ferarum or else ab ore. In these cases the erethism of the woman is insufficient to cause the venereal spasm, but is powerful enough to counsel manualization.

A woman of Luxemburg, aged 24 years, married to an ex-soldier of the African Legion, came to consult me for a relaxation of the sphincter ani. She was likewise troubled with general agitation and visual hallucinations that frightened her. She confessed, weeping, but not without reticence, although the proofs of passive sodomy were flagrant, that shortly after her marriage, three years since, her husband had commenced to have buccal and especially rectal connection with her.

Excited in the highest degree but unsatisfied by these disgusting procedures, whose frequency kept her in a constant state of erethism, she had given herself up several times daily to solitary maneuvers in the hope of calming her desires, but had only succeeded in exciting them still more.

c. We have seen above that the male often terminates copulation before the female; it follows naturally that the latter, because of this slowness which only permits her to have a commencement of pleasure, tires in the long run of an act that is more disagreeable than otherwise, and gives herself up to unnatural practices which will permit her to consummate a pleasure that coitus only taught her to have a presentiment of.

d. There is in the husband or lover an innate desire—and I think no one will gainsay it—to see the voluptuous sensation that he enjoys shared by his companion. If the woman is naturally cold but clever she simulates an enjoyment she does not feel; an adroit and intelligent manner of attaching her consort to her.

All women, however, do not act thus. Some of warm temperament and lively imagination are apathetic

ic in coitus, and after it indicate by caressing words or expressive gestures to their husband or lover another means of helping them arrive at the desired goal. Nevertheless, this is always an illicit maneuver.

On the other hand, it must be acknowledged that the men are far from being strangers to genesis of the taste for manualization in women. They may say their mea culpa.

When a young man tries to obtain the favors of a woman, to whatever class she may belong, after the presents, the amorous words, even alcoholic excitement, after kisses of all kinds to bring the erotic erethism of his companion up to the level of his own and to arrive at his goal he does not hesitate, as soon as he deems the moment propitious, to slip his hand under the feminine garments and maneuver there until the woman abandons herself wholly to him.

Here is something so odd as to be worthy of mention that happens frequently in the villages of Pas de Calais and possibly elsewhere. Whenever there is a marriage between country people of the lower classes the wedding guests after the dinner and before the ball pair off and go, six or seven couples together, into a room, and there, after a few doubtful jokes and stories, the shutters are closed and the curtains drawn. Now the young men take their partners upon their knees, and the girls, who for a fortune would not yield themselves to their lovers, allow themselves, so elastic is their modesty, to be "manualized" with pleasure.

e. In the world may be found women whose passionate desires have been calmed by marriage. Death deprives them, while still young, of their husbands. Social reasons, one or several children, prevent them from forming a new alliance. Religious scruples or the fear of pregnancy keep them from taking a lover; nevertheless, their desires increase in proportion to the time they are unsatisfied.

How to act in this case? How quench their thirst for pleasure?

There is but one way, for the consequences of which, as Juvenal says, "abortivo non est opus!"

What I have said of widowhood is equally true of that temporary widowhood that the husband's journeys may cause in some households. In 1871, while at Lille, I had to attend a woman of 22 years whose case was as follows: She had a rebellious leucorrhœa. Not being able to assign with certainty any cause for this trouble in a person of her constitution I suspected onanism. After a few denials this lady acknowledged that her lover made trips of several months' duration and that during this time she was tortured with irresistible desires.

She calmed these by clitoridian titillations. "I have," said she, "in the first place, a great deal of affection for my lover, and, besides, I do not dare give myself to another man during his absence for fear of pregnancy; therefore, this way only remains."

f. We frequently find unfortunate women endowed by nature with a repulsive deformity or hideous infirmities. For them are no liaisons, no marriage, no love, no men; nevertheless they have a heart like other persons of their sex; they have an innate need of affection and senses to be satisfied. Everybody repels and makes a jest of them. What is the consequence? They become almost fatally the victims of solitary libertinage.

I shall terminate this long enumeration of the causes of onanism with a few words on its religious etiology.

E. RELIGIOUS CAUSES.

It is not my place to judge religion; nevertheless, it is evident to most people that a certain portion of the culte, confession, is a very arduous thing and one which demands a tact of unheard-of delicacy on the part of its ministers.

The trappist father Debreyne, author of "Moechiologie," says himself that "too great curiosity on the part of the confessor is capable of ruining young people of either sex. We have seen those who, after having

been imprudently questioned on the sixth commandment, have tried to do what their confessor had imprudently taught them by his indiscretion."

It is certain for us that the confessor exceeds his rights when he questions his penitente "de actu conjugali, de situ, de osculis more columbino, de amplexibus, de tactibus impudicis," when he asks her if "in copula erat succuba vel incuba" or forces her to recall if ever her husband "semen emisit extra vas."

The penitential interrogations are untimely when addressed to a girl or woman. They are the following: *

"Fecisti quod quaedam mulieres facere solent, quoddam molimen aut machinamentum in modum virilis membri, ad mensuram tuae voluptatis, et illud loco verendorum tuorum aut alterius cum aliquibus ligaturis ut fornicationem faceres cum aliis mulieribus, vel alia eodem instrumento sive alio tecum? * * *

"Fecisti quod quaedam mulieres facere solent, quando libidinem se limine vel alio aliquo machinamento tu ipsa in te solam faceres fornicationem?

"Fecisti quod quaedam mulieres

facere solent, quando libidinem se vexantem extinguere volunt, quae se conjungunt quasi coire debeant et possint, et conjungunt invicem puerperia sua et sic confricando pruritum illorum extinguere desiderant? * *

"Fecisti quod quaedam mulieres facere solent, ut succumberes aliquo jumento et illud jumentum provocares ad coitum qualicumque posses ingenio ut sic coiret tecum? * * *

"Fecisti quod quaedam mulieres facere solent, ut cum filio tuo parvulo fornicationem faceres, ita dico ut tuum filium supra, turpitudinem tuam poneret ut sic imitateris fornicationem?"

Although the author from whom I have taken these extracts affirms that it is the method of confession laid down in all the books of "Theologie Erotique," I think for the honor of the clergy that these precepts have fallen into disuse.

What reforms in religious matters are necessary is not for me to say. I can but repeat with the author of the "Maudit:"

"Guidance, mystic readings, books of piety composed for young people, where in trying to teach them to be chaste they are shown how one is not, constitute a veritable moral rape."

* Le Confesseur, vol. ii, chap. v.

(To be Continued.)





Editorial

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THE RELATIONSHIP BETWEEN THE MEDICAL JOURNAL, THE ADVERTISER, AND THE GENERAL PRACTITIONER.

There are few, who read the pages of a medical journal, who stop to think of its important bearing on the education of the profession through the influence of its advertising pages. A journal of this nature is considered a scientific production, which, indeed, it should be, but how little one thinks that its relation to scientific education is not confined to its reading pages, so termed.

The medical profession is peculiarly susceptible to new ideas. Individually, the practicing physician relies on the periodicals he has selected to adorn his office table and library to augment his store of knowledge and supply him with those new ideas. He is perfectly justified in expecting this, and it is the aim of most journals of any worth to supply them.

Most of the profession well know that the vast amount of current literature cannot be incorporated between the covers of any one periodical; hence, it subscribes for more than one, and, hence, the excuse for the existence of the hundreds of medical journals throughout the country, many of which are no more than catch-penny advertising

schemes, relying on an over-rated circulation to make money, or disseminated about in the interest of some medical school or manufacturing chemist.

It is doubtful if there exists to-day, in this country at least, a medical journal of scientific worth but must of financial necessity admit to its advertising pages much that is unscientific and undesirable. We believe this is even true of those journals that are continually crying "ethics in journalism," unless they are conducted at a loss for the purpose of advertising some school, or other object, in the interest of the parties who run them; a glance at their pages readily reveals the true object of their existence. But business is business, and the journal of the present day that is run on sentiment or idealism soon comes to financial grief; the profession recognize it—when it is gone—but they do not accord it their support because the price comes too high.

This is a time when everyone looks out for himself; physicians and all. The doctor is called to his patient as a matter of business, because he is supposed to know more

about diseases than the friends of the sick. Uneducated advice, like newspaper medicine, often causes disaster to the patient. The physician should have that knowledge and foresight necessary to bring to a successful issue the case in hand, if such be possible. In short, that is what he is employed for. Suppose the case be peculiar. The physician will consult his constant advisers, which are his library and medical journals. In one or more of the latter he sees the advertisement of some manufactured product which is peculiarly adaptable to the case in hand. He tries it and he meets with success. Naturally he inquires further into the nature of the product, communicating directly with the advertiser. If the manufacturer imparts sufficient knowledge of his product, so that the physician can intelligently use it, he has benefited both physician and medical journal in a practical manner, besides instilling confidence in himself.

On the other hand, if the remedy fails of therapeutic action, or the manufacturer declines to enlighten the inquirer so that he can apply it intelligently, he not only injures his own cause, but that of the journal in which his advertisement appears, and he is very apt to blame the circulation of the journal, and claim that medical journal advertising brings no beneficial results at all. The physician, also, may censure his journal for thus advertising unscientific products.

Now, it is not always apparent to those journals that strive to weed out injurious advertising whether a product is good or an advertiser aims at scientific advancement. Certain houses have always been recognized as reliable and devoted to the best interests of the profession. Some of them advertise in medical journals and some do not. Although deprecating the condition which leads the non-advertisers to adopt a different policy than that tending to elevate medical science, we will later give some reasons why they follow such course.

That good medical journals must live or the profession would lack

general progress is self-evident. In the same sense must the manufacturing chemist sell his products or he cannot live by advancing therapeutic measures. The physician must have both or he cannot keep abreast of his professional brethren in all that pertains to the scientific management of his cases. The three are in pursuit of similar ends; first, personal support through the almighty dollar, under the cognomen of "business," and, second, the advancement of professional attainments of practical and scientific value. The three are one in the ultimate designs for which each contributes his part.

The advertising of medicinal or secret remedies, in the daily press, is to be deprecated by the profession, not only as harmful to its business interests, but to the health of the public as well. Uneducated persons are not adequate advisers as to whether an invalid needs a tonic or a depletive, a stimulant or a sedative, or whether a crying infant needs soothing syrup or its mother's breast. Neither can a newspaper undertake to prescribe for one's symptoms. This sort of advertising tends to harm by attempting to teach an uneducated (medically) public, in an unscientific way. The result is, a smattering of incorrect knowledge which is worse than useless to the sufferer, but which is lent color and worth by the literary standing of the paper in which it appears. This sort of humbugging by designing advertisers should be suppressed as a menace to the public health.

At the present time the demand is for cheaper literature; that is, scientific journals at about the cost of the daily or weekly press. There are many causes which make this successful in some instances and failures in others. These causes are also closely allied to those which incite some worthy manufacturers to withdraw from advertising in medical journals. We refer to the lack of support given the manufacturer by the subscriber.

The success of a medical journal is directly dependent on two sources of income. First, that derived from a large subscription list; second, by

the support from advertisers. But third, and indirectly and as important is the support given the manufacturer by the subscriber through his medical journal. The failure in this last element of support is the keynote to the failure in establishing good scientific journalism at moderate cost to the subscriber.

Some manufacturers, (fortunately there are many exceptions) who from the worth of their products desire and are entitled to the patronage of physicians, have withdrawn their support of some of the best of our medical journals, for the very reason that attention is given to their products far more profitably through the medium of agents, who canvass among physicians, than through the medium of medical literature. Now, we all know how disagreeable it is when busy with office patients, or in a hurry to attend a call, to be interrupted by an agent, whether he has anything to sell or give away. Politeness compels us to overdo our manifestations of devotion to him while secretly we are cogitating some means of escape, or tempted to kick him out of the house. The plan may be an advantageous one to the manufacturer, and is undoubtedly an excellent addenda to a generous advertisement in our medical journals, but as physicians, we should never allow it to ruin our chances for good scientific journalism at a cheap subscription price, by neglecting our duty as indirect supporters of our favorite periodicals.

The consequence of this is that there has crept into medical journalism to-day much advertising that is unprofessional, and not strictly ethi-

cal. Failing to receive support from those quarters which tend to elevate and advance medical science, many journals are forced to take whatever comes to them, in order to sustain themselves. The same reasons apply to the forcing of worthy manufacturers from medical journal advertising into the daily press; an act fully as unprofessional and despicable, so far as the medical profession is concerned, as the first.

There is probably no city in the Union in which its local medical journals receive so little local support from the trade, both from instrument makers, medical schools and chemists, as in Philadelphia. For this reason the good name of Philadelphia as the greatest centre of medical thought and learning in America is fast becoming obsolete.

It is in the power of the subscriber to influence in a material way this order of affairs. He can repudiate the soliciting agent unless the house he represents is a liberal advertiser in the journals to which he subscribes. He can refuse to employ those products which do not come up to the standard of value claimed in the advertisement. He can protect his own interests, and those of the reputable manufacturer and journal, by refusing to prescribe such products as are advertised in the daily press, catering to the ignorance of a lay public. In short, reciprocity is the only means whereby the unit of interests between the medical journal, the advertiser, who really has the advancement of scientific medicine at heart, and the practitioner can be maintained.

DIPHThERIA ANTITOXIN AS A CULTURE MEDIUM FOR THE DIPHThERIA BACILLUS.

Some interesting correspondence has been published in the late numbers of the British Medical Journal relative to diphtheria antitoxin as a culture medium for the diphtheria bacillus. We are not surprised at the result of the investigations, prov-

ing that serum of any sort will prove an excellent culture medium. It would not have been along the line of sound reasoning to have had it prove otherwise.

The letters in question refer to this fact, having been brought out

by Drs. Wright and Semple, of the Netley Army Medical School, and are as follows:

"In the British Medical Journal of October 12 I was much exercised in my mind to learn that Drs. Wright and Semple, of the Netley Army Medical School, suggest the use of diphtheria antitoxin as a culture medium for the diphtheria bacillus. I have not had an opportunity of verifying their experiment; but if it is a reliable one I wish to point out that it appears to upset my view of the value of the antitoxin as an antidote to diphtheria poisoning. I have always understood, although I may be open to correction, that the antitoxin contained a something—possibly a ferment—which, when introduced into the body of a patient suffering from the disease effectually prevented the subsequent growth of the Klebs-Loeffler bacillus. If this is not so, what is the use of the injection? I am, etc., W. A. Hollis."

"In reply to the letter of Dr. W. A. Hollis, in the British Medical Journal of November 9, respecting the employment of diphtheria antitoxin serum as a medium for cultivating the diphtheria bacillus, I may say that I have made trial of Drs. Wright and Semple's method with satisfactory results. Three inoculations were made as directed from membrane expelled from the trachea of a severe case of diphtheria in a boy, aged 5 years, which proved fatal on the fifth day, after tracheotomy and two antitoxin injections. At the end of twenty-four hours colonies had developed at the sites of inoculation, and these showed, on microscopical examination, crowds of short and long bacilli, with cocci. One little detail may be added to Drs. Wright and Semple's directions: the bottle can be kept at practically body heat during the daytime by carrying it beneath the waistcoat as they describe, but what is to be done at night? I placed the bottle in my axilla, secured by a string round the neck.

"I take it that the antitoxic serum serves in this capacity simply as a culture medium, any special properties which it possesses being de-

stroyed by the heat applied to produce coagulation. I am, etc., H. W. Webber."

"Your correspondent, W. A. Hollis, in reality proposes to Dr. Semple and myself the following dilemma: either (1) the injections of anti-diphtheritic serum may be useless, and, if so, the antitoxic serum may be a good cultivation material for injections of anti-diphtheritic serum are useful, and then it must follow on a priori principles that the diphtheria bacillus will not grow on antitoxic serum.

"The only way of dealing with such an argument is to show that there is another possible alternative which we have no a priori reasons for rejecting. The alternative in question is that the injections of antitoxic serum may be useful, even though the antitoxic serum possesses no bactericidal power whatever. Now, since this is a proposition which probably every bacteriologist is concerned to maintain, it may be well to show that its acceptance does not involve us in any contradictions. The matter will probably become perfectly clear to the reader if he will consider and compare the two following series of propositions: (1) Alcohol is produced by the yeast plant. The absorption of that alcohol into the system constitutes an 'alcohol intoxication.' Certain drugs, such as opium or bromide of potassium, do to some extent neutralize the effects of that 'alcohol intoxication.' A sugar solution constitutes an excellent culture medium for the yeast plant. (2) Diphtheria toxin is produced by the diphtheritic bacillus. Absorption of diphtheria toxin into the system constitutes the 'diphtheria intoxication.' Diphtheria antitoxins neutralize the effects of that 'diphtheria intoxication.' Serum is a good cultivation medium for the diphtheria bacillus.

"Now, we are evidently no more entitled to infer a priori from the one series of facts that the presence of 'antitoxins' in the serum would render it a bad culture medium for the diphtheria bacillus than we are entitled to infer a priori from the other series of facts, that the presence

of opium or bromide of potassium in a sugar solution would render that sugar solution a bad culture medium for the yeast plant. In both cases the question is simply a question for experiment. I am, etc., A. E. Wright."

We have always regarded the theory of antitoxin, when put in the light of a developmental result of a toxin, within the blood of the living human being, or animal, on account of the self-limitation of disease, as considerably mythological. The idea that because a disease gets well of itself, that there is developed in the blood an agent antagonistic to the poison arising from germ production must, in view, of the apparent good office of diphtheria antitoxin, so-called, be doubted.

If we watch the effect of injecting this diphtheria antitoxic serum, we will observe the rapid manner in which the false membrane leaves the inflamed and congested mucous surfaces. Such action cannot arise from the simple bactericidal or antidotal effect of the remedy, in the sense that antidotal means counteraction of direct poison. The congestion

and inflammation is too early relieved to be due to anything else than a restoration of correlative circulation in the lymphatics, thus bearing away those products of disturbed circulation which go to make up the phenomenon of fibrinous inflammation.

We seem to have in the serum of certain animals that power to restore to normal tone, the blood cells, which is the first essential element in establishing correlative circulation. The obstructing agent in the lymphatics once removed, nature takes care of the products of inflammatory action by her own eliminating channels. This sort of treatment is along the line of "hematheraphy" instead of "antitoxic," when clinically considered, although doubtless our bacteriologic friends will not admit it. We look for a clearer understanding of the nature and effect of serum injection in the treatment of diseases one of these days, and would not be surprised to find it along the lines of its opposite, blood-letting, which held full sway a century ago, and which is too often discarded at the present time, in therapeutic deductions.





PHOTOGRAPHIC DIAGNOSIS, BY MEANS OF THE RADIANT
ENERGY OF AN INDUCTION COIL CURRENT OPERAT-
ING THROUGH A HIGH VACUUM TUBE.

BY S. H. MONELL, M. D.

From the Wurzburg University in Bavaria comes a recent report of an exceedingly interesting discovery. The phonograph and kinetoscope are electrical marvels, but offer little or no aid to medicine. The achievement of Professor Roentgen promises, if proved a reality, to very nearly revolutionize the diagnosis of definite organic lesions. The electric light has already been employed in its ordinary form in the treatment of quite a number of diseases. More than a year ago Dr. J. H. Kellogg described an "Incandescent Electric Light or Radiant Heat Bath," which had been used by him for three years. The bath is made in the form of a cabinet, with 50 or 60 incandescent lamps arranged in rows inside; the space between the lamps being covered with glass mirrors. The author refers to the superior penetrating power of radiant heat was compared with the convection heat of Turkish, Russian, vapor or hot-air baths. Its therapeutic value has been successfully established.

I have mentioned before in this department the illumination of Geissler vacuum tubes by the high tension current from the induction coil of my improved faradic apparatus. Another form of electrical luminous-

ity is obtained by passing an induction current through what are known to science as Crookes' tubes. The electric illumination thus produced is radiant energy and possesses wonderful penetrative powers.

Until very lately this form of light was called radiant heat. Science is now revising the view formerly held and considers radiant energy a better term to apply to the longer vibrations of ether, which penetrate organic substances opaque to the shorter vibrations of sun-light.

Our interest in the matter relates to the report that the discoverer has already succeeded in photographing broken limbs and bullets in human bodies. Wood, flesh and other organic substances are pierced by the light and objects behind them—coin in a leather purse, metal objects in wooden boxes, the bony skeleton beneath the skin and tissues—are as readily photographed as is the human face by ordinary means. If the claims made by this Bavarian chemist are justified by further experiments, and if certain modifications of the process prove to be possible, it is at once apparent that a discovery has been made of great value to medicine, and which illustrates in an unexpected way a remarkable property of induction coil currents.

If these rays of radiant energy render the skin transparent for photographic purposes—as is claimed—the possible utility of such a method of diagnosis depends only upon the definiteness of the process. If this triumph of science can make visible to our eye the vascular system, the contents and state of the stomach and intestinal tract; determine not only the location of a bullet embedded in bone, but the presence of tumors; outline the internal organs; detect pulmonary and cardiac lesions; decide between dislocation and fracture; in fact disclose to a visual examination every distinct pathological entity and leave little more to guess work than functional derangements, then the whole art of diagnosis will be revolutionized. The mere declaration that it is in a fair way to be accomplished is one of the most astounding sensations of modern science.

The celebrated case of St. Martin, whose fistulous opening into the stomach, gave us our first definite knowledge of the most important of the physiological properties of the gastric juice, is totally dwarfed by the suggestions which spring to mind while reading reports of Prof. Roentgen's work.

Such a process would make it possible for us not only to see a pyloric cancer or a cerebral clot, but to watch the action of electric currents within the tissues; to study the effects of drugs; and make physiological research an exact science. This would place clinical medicine and electro-therapeutics upon equally firm ground.

The method is described in general terms as follows:

The vacuum tube is arranged like the lens in an ordinary camera, and connected with a proper induction coil operated by a battery. Over the end of the tube, from which the rays are focussed, a heavy cloth is then thrown in such a manner as to clearly outline the tube's end.

It is asserted that a special quality of radiant energy has been obtained through the tubes employed, with which science has not been familiar. Prof. R. also holds and

claims that his newly discovered process will clearly show, as it develops, that there is no such thing as an opaque object. The penetrating power of light is regulated by its intensity and method of use, and the Professor is convinced, from the facts he has arrived at, that the greater uses of heat and electricity are not known yet; that they are capable of vast development.

While waiting for the result of his further experiments it is interesting to note the opinions of Mr. Edison, whose work in the evolution of the kinetoscope added an expert knowledge of photography in its most difficult branches to his great acquaintance with electricity. He is reported to say:

"There is nothing impracticable about Prof. Roentgen's discovery, and if the reports are correct, I consider it one of the most remarkable scientific discoveries of the age. Its possibilities may prove almost limitless. This Bavarian professor has evidently been a tireless experimenter—the undiscovered wonders.

"How is it accomplished? It seems to me that his method is about like this: He has plates sensitized with chemicals that are acted on by radiant energy, which is nothing more nor less than light which cannot be seen. In fact, it is photography through vulcanite. Low waves of radiant energy pass through the sensitive plate, and the desired result is obtained. The inventor works with what we call waves of low refrangibility.

"While no such advanced idea as this man has made public has ever occurred to me, I had thought of the possibility of photographing by means of radiant light. For instance, it seemed to me that if you stood a man up and let his body form part of a partition, for instance, with rubber on each side of the body, then by means of a powerful heliostat you could throw an equally powerful ray of light directly through that body, the result being a photographic reproduction of the interior of that particular specimen of man.

"There would seem to me no rea-

son why the process of photography under stated conditions could not be so advanced as to photograph the interior of the human body by sections. Of course this would be of considerable aid to medical science. For instance if a man was suspected of having a tumor—a cancer—all that would be necessary to do would be to photograph the section of the body where the growth was supposed to exist. Then, in case of a wound by a bullet—as President Garfield's—it would be an easy matter to merely photograph the interior of the patient and locate the foreign substance without any of the painful probing surgeons now resort to.

"There is a possibility that this photography can be so developed as to put an end to all necessity for vivisection, for if by its means the entire interior of man can be laid bare most of the information the vivisectionists seek could be gained in this way. It may be possible, too, to penetrate the interior of the skull and get an exact photographic representation of a living human brain performing its functions.

"The cardinal factor of the whole matter is radiant heat (radiant energy), but I am satisfied that the Wurzburg investigator has special rays thereof and special chemical plates. There is no essential difference between radiant heat and light, both being forms of radiant energy, the ether waves differing intrinsically among themselves in wave length only, and thus producing different effects, heating, luminous and chemical, in the bodies on which they impinge, according to the nature of the bodies. The waves whose penetrating effect is generally the greatest are of greater wave length than those which most affect the eye—light rays—and have longer periods of vibration.

"This gives you an idea of what radiant energy is, and we can see by this new process what a powerful agent it can become. Take, for instance, water or any liquid so dense that by means of ordinary light it is impossible to see any distance beneath the surface. By means of this new process and the radiant heat

rays that form its cardinal principle I see no reason why a photograph could not be taken of any part of the bottom of the ocean, for the rays of radiant energy will penetrate for miles, if necessary, until stopped by an object which is opaque to them.

"See how easily wrecks, sunken treasures and even breaks in submarine cables can be readily located. As a matter of fact, this process, if demonstrated, and I see no reason why it should not be, will practically lay bare nearly all the secrets of nature. Photography by means of radiant heat rays can show the mechanism of the human body in full operation.

"Any organ can be photographed and by means thereof its condition would be apparent to the eye of the medical man.

"I see no reason why, as I said, this process cannot be developed almost to infinity. It is merely a question of time and further experiment, for it is one of those things we advance with only through experiment."

These remarks of Mr. Edison were submitted by the author to a personal friend whose scientific and practical attainments in the fields of both electricity and photography enable him to fairly estimate the probabilities of the reported discovery.

The opinion is expressed by him that facts already known point the way to other facts which, if discovered by the Wurzburg chemist, would make such photography as possible as that which we now do with other light waves and plates sensitized with other chemicals on which they act. As presented by Mr. Edison the idea is something tangible, which can be comprehended as possible by the scientific mind, and which depends only upon the fulfillment of natural conditions to become an ordinary achievement in photographic work.

It is already more than a chimerical fancy and fuller developments will be awaited with great interest, especially by all who are seeking to promote the usefulness of electricity in the field of medicine.

865 UNION STREET, BROOKLYN.



Correspondence.

Editor Times and Register:—

Yesterday in looking over the "Times and Register" of January 4, 1896, the first article under Obstetrics and Gynecology, taken from the *Lancet*, so closely corresponds with my experience that I decided to write you in relation to the same, which you can publish if you consider it of sufficient worth:

Patient Mrs. F., aged 25, first pregnancy, married 18 months, gestation normal, healthy, fine figure, beautiful woman, well educated and good circumstances. First pains of labor at 3 A. M., December 27. Was called to see case at 6.30 A. M. Pains severe for first stage, and as frequent as every five minutes. On examination found os would only admit tip of finger and was rigid during pain, and so extremely sensitive as to cause great distress when touched by the finger. Saw patient again at 9.30 A. M. Pains still frequent and distressing and no very perceptible dilatation. At 12 M. she was suffering so severely I decided to use chloroform, having used morphia, chloral and bromide to no purpose. Chloroform did not affect her as rapidly or profoundly as it does most cases and when she seemed

to be "asleep" the most careful examination would "wake" her at once. I kept her relieved by chloroform till nearly 6 P. M., when dilatation had progressed to about the size of a 25-cent piece, pains still as often as five minutes, os very sensitive and pains even more distressing than they had been.

It occurred to me that if some local anesthetic could be applied to the os I might be able to dilate the same.

It was quite natural to think of cocaine for local use, and although I had never used it or heard of its being used there (except for the vomiting of pregnancy). I procured a 10 per cent. solution, saturated a pledget and applied it to the os and waited ten minutes or so, when, upon examination, I was surprised as well as delighted to find the os fully dilated, the sensitiveness gone and, as the patient was now "asleep," and had suffered 15 hours of pain, I advised the use of the forceps, delivering at once, and patient made the usual uncomplicated recovery. I propose to try cocaine in every similar case till I prove or disprove its efficacy.

CALVIN F. KYTE, M. D.,

316 Pavonia avenue, Jersey City.

WAYSIDE NOTES.

By Ernest B. Sangree, A. M., M. D., Philadelphia.

To the average American probably the most striking peculiarity in the daily life of the Continentals is the sang froid with which they attend to the demands of nature. A party of ladies and gentlemen will be sitting at a cafe table, sipping wine or beer, when, suddenly, with or without an "excuse me," a lady or gentleman will rise, calmly walk to

the closet, perhaps in plain sight of the table, and shortly return in as matter-of-fact a way as the departure was made. If thrown in her company for a half hour or so, a German gentleman thinks it quite polite to inform a lady as to the location of the water closet in any particular place, even though she may not have manifested any desire for such knowl-

edge. Americans, I noticed, soon fall into these ways and what would shock them at home, becomes of no moment over there. We go on the principle in this country that human beings have neither rectum nor bladder, or that if a man is unfortunate enough to possess either of or both these organs, he must attend to their wants secretly and surreptitiously, as crimes are performed. Over there closets and urinals are to be found at about every third street corner. Some are free, some are to be paid for. My first introduction to the latter class gave me a gentle shock, from which, however, I soon recovered. Upon entering the door of a neat-looking closet in a large summer garden, I was instantly met by a short, dumpy little woman of some 45 summers, who darted towards me along the narrow hallway and hastily interrogated thus: "Erste oder zweite?" (first or second).

Concluding that as everything else in Germany was divided into two or three classes, this business probably was, too, and not being a proud man nor of noble blood, I intimated that second-class would doubtless satisfy my humble wants.

With a celerity born of years of experience and countless repetitions, she opened a little door to my left, jerked up a plain white little chamber pot from the floor in one corner, set it on the side of a closet seat in another corner, darted out of the room and shut the door. No sooner had I opened the door again than she reappeared as quickly with her hand outstretched for the expected five pfennige, the official price. After-

wards as a matter of curiosity I tried the first compartments, at ten pfennige, but beyond a few more adornments in the room and a somewhat ornamental chamber pot instead of a severely plain one, it was five pfennige thrown away.

It struck me, however, that they often carry this indifference too far. At many points, in the open, are arrangements similar to the urinals in our public buildings, only all that shields the man's back is a metal fence as high as his shoulder. Thus it happens that from an omnibus top, if one glances down at a place of this kind in full blast, one's eye cannot help witnessing gentle parabolic curves proceeding from organs which we have been taught should, and which ought to be, decorously concealed from the public gaze. This infraction of public decency I noticed especially in Italy, the lower part of Switzerland and in Paris. London has the best arrangement of all, though unfortunately too few in number. At the intersection of certain of her irregular streets one will find a railing protecting a ground glass sky-light. Steps at either end lead down to an excellently-fitted up, clean-smelling compartment with a row of urinals on one side and closets on the other. The urinals are free, while if one wishes to use a closet, a penny dropped in a slot opens the door automatically. For an additional penny an attendant will permit the use of soap, water and a clean towel. It is the greatest pity in the world that we do not have such places in our own large American cities.



Current Medical Literature.

HOT WATER AND ULCER OF THE STOMACH.—Dr. Achilles Rose said he was aware that drinking hot water had become very popular, and it had become necessary to sound a warning. It had been shown by collective investigation that a great many cases of ulcer on the stomach occurred in cooks. This had led to the supposition that it might be due to tasting hot soups, etc., consequently laboratory experiments were instituted on dogs by pouring water, about of the temperature usually prescribed for patients, through a tube into the stomach. These dogs were killed from day to day and week to week, and it was found that the hot water first caused a hyperemic spot, and, in course of time, ulcer of the stomach. Dr. Rose was once visited by a cook, whose master's physician had prescribed for her drinking very hot water. Dr. Rose found that she was suffering from ulcer of the stomach, a condition contra-indicating hot water treatment.

—Med. Rec.

ARE SANATORIA FOR CONSUMPTIVES A DANGER TO THE NEIGHBORHOOD?

(Sind Lungenheilstalten eine Gefahr für die Umgebung?) Dr. Nahm (Munch. med. Wochenschr., October 1, 1895). The medical officer to the well-known sanatorium at Falkenstein has collected information from the death registers of that district with the object of seeing if the deaths from phthisis amongst the inhabitants have been more numerous since the establishment of the institution and the consequent assemblage of consumptives in the locality. He gives a table, extending from 1856 to 1894, showing for each year the total number of inhabitants, the deaths from pulmonary tuberculosis and those from all other causes.

From these figures he calculates the death rate for tuberculosis per 1000 living for twenty years before the building of the sanatorium, and compares this with the tubercular death rate from 1877 to 1894, during which time the institution has been in existence. A similar comparison is made on the basis of the percentage of deaths from tuberculosis to the total deaths from all causes. He finds that in the first period—before the sanatorium existed—the deaths from tuberculosis averaged four for every thousand persons living, whilst in the second period, where a large number of consumptives were living in their midst, the deaths from this disease amongst the inhabitants fell to 2.4 for every thousand living.

The figures are of such interest, in view of the objections raised by the inhabitants of places selected for the establishment of sanatoria for consumptives, that they may be put in tabular form to facilitate comparison.

Average Death-rate From Tuberculosis
Amongst the Inhabitants of Falkenstein.

Before the sanatorium existed (20 years).
4.0 per 1000 living.
18.9 per cent. of all deaths.
Since the establishment of the sanatorium (18 years).
2.4 per 1000 living
11.9 per cent. of all deaths.

In the face of these figures Dr. Nahm considers the outcry as to the danger of the neighborhood being infected by the erection of sanatoria for consumption is without justification.—London Practitioner.

A NEW METHOD OF ESTIMATING ALBUMEN IN URINE.

Riegler (Wien. Med. Blatter, November 28, 1895) brings forward a new and rapid method of estimating albumen by means of the refractometer. It depends upon the power of his new reagent, asaprol, to pre-

precipitate all albuminous substances in acid solution; the precipitate is soluble in weak caustic soda or potash, and the refractive index of the solution bears a direct relation to the amount of albumen present. In practice the asaprol (10 per cent.) is made up with 10 per cent. concentrated hydrochloric acid. Exactly 25 c. cm. of deci-normal potash solution are used, and added to the precipitate resulting from the mixture of 5 c. cm. of asaprol solution with 50 c. cm. of urine. The refractive indices of the potash solution are determined by Pulfrich's refractometer, and their difference of albumen present. The coefficient 270 was determined by Riegler as the result of experiments on measured quantities of albumen.

—Brit. Med. Jour.

AN INTESTINAL ASTRINGENT FOR CHILDREN.

In the treatment of various diarrheal affections of childhood it becomes necessary to resort to the use of astringents in order to arrest profuse and exhausting discharges. As is well known, the latter quite often persists even after means have been taken to free the intestinal canal of all irritating materials by the employment of purgatives, rectal irrigation and the administration of intestinal antiseptics. In the selection of such an astringent, however, greater difficulties are encountered in the case of children than in adults, owing to the greater tendency of disturbing the digestion apparatus, of producing nausea, vomiting and of increasing the existing anorexia. According to a communication presented to the Paris Academy of Medicine, at its meeting, December 3, 1895, from Dr. Moncorvo, of Rio Janeiro, Tannigen is an ideal astringent for the diarrheas of childhood. He states that this drug is absolutely tasteless and odorless, and was well tolerated by all the little patients, being given in gruels in doses ranging from 4 grains four or five times daily to 30 grains pro die. It was well borne even by very young infants, and never produced vomiting, gastralgia, colic or malaise. In cases where salicylate of bismuth or benzo-naph-

thol had proved unsuccessful Tannigen gave excellent results. Dr. Moncorvo's experience goes to show that this drug, given alone or in combination with the insoluble intestinal antiseptics, can be always depended upon to render good service in the treatment of diarrheas of children, whether of acute or chronic character.

ICHTHYOL SALTS OF ALKALOIDS.

At a meeting of the Liverpool Chemists' Association, held November 28, Harold Wyatt, Jr., read a communication on a reaction of ammonium ichthyol sulphonate. A prescription he had to dispense had brought under his notice a decomposition occurring when ammonium ichthyol is brought into contact with alkaloids or their salts. The formula was:

Morphine hydrochlor	4 gr
Ichthyol ammon	30 gr
Ung. petrolei, ad	1 oz

On rubbing the morphine hydrochlorate with the ichthyol on an ointment slab the smooth cream at first formed suddenly became clotted, drops of watery liquid separated, and the clotted portion left the tile and adhered to the spatula. A smooth and presentable ointment was ultimately produced by the addition of 2 grains of powdered soap.

The author found that when morphine hydrochlorate and ichthyol were heated over a water bath the ichthyol became solid, leaving a clear aqueous fluid containing chloride of ammonium. It was evidently an instance of double decomposition resulting in the formation of a morphine ichthyol-sulphonate and ammonium chloride. The pure alkaloid morphine gave a similar compound with evolution of ammonia gas, and a corresponding result was found with quinine hydrochlorate and ammonium ichthyol.

From this it will be seen that alkaloids form ichthyols as readily as do the alkali metals, the resulting ichthyols being of firmer consistence and well suited to internal administration in pillular form.

—American Druggist.

PILOCARPINE IN DIPHThERIA.

Ten drops three times a day of a one per cent. solution of pilocarpine hydro-chlorate has been found efficient as a prophylactic against diphtheria by a Hungarian physician, Dr. Sziklai. The dose mentioned is that for a child over a year old. It is especially valuable in preventing the spread of obstructing false membranes in diphtheria and croup.—Denver Med. Times.

PILOCARPIN IN INFLUENZAL PNEUMONIA.

Poulet, of Plancher-les-Mines (Nouveaux Remedes, November 24), has used hydrochlorate of pilocarpin in influenzal pneumonia with very good results. During an epidemic which prevailed in that neighborhood in February, 1895, and which attacked more than 1000 out of a population of from 3000 to 4000, he treated 108 cases in which pneumonia and broncho-pneumonia were formidable complications with pilocarpin, with only four deaths. He gave the drug in daily doses of 5 centigrammes, except in the case of children, to whom a proportionally smaller amount was given. The treatment generally lasted two days only in a few cases three days. The treatment was successful in several cases of old people over 70 years of age. It is to be noted that pilocarpin was by no means equally effective in pneumonia complicating whooping-cough in children.

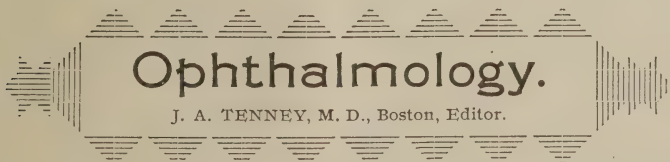
—British Med. Jour.

WASN'T INJECTED WITH AN-TITOXIN.

A diphtheria scare at Rockland, Me., frightened one young woman into wearing a tarred rope about her neck, a camphor bag on one shoulder and a sulphur bag on the other, and powdered sulphur in her shoes, and even then she caught the disease after all.

LIKE SOME PROFESSIONAL FAKES.

The germ theory in its relation to treatment by toleration is so often carried to excess of imagination that it resembles a story in a recent French work of fiction in which figures a quack who has made his fortune by selling influenza honey. How he produced it was as follows: The bees were kept in a large conservatory, or, at any rate, under glass, so that they could only pasture on the flowers provided for them, and of course these were chosen for their medicinal properties. Hence ready-made physic of the most delicious kind was garnered. This was laughed at as an extravagant invention; but it was not quite so absurd as some of the critics imagined. Bee-keepers intent on producing a luxury are annually more and more inclined to experiment on similar lines. The difficulty really lies in educating the palate of the average consumer, to whom honey is merely honey, a breakfast table relish, varying in quality hardly more than salt.

**THE TROPOMETRE.**

In the *Annales D'Oculistique* Dr. Stevens describes an instrument that he has devised for measuring the excursions of the ocular muscles, which he calls a tropometre. It consists of a telescope containing a

graduated scale, which, being brought to bear upon the eyes of the patient, will accurately measure the movements of the eye in every direction.

Dr. Stevens claims, what every-

body will admit, that tenotomies should leave binocular vision at all normal points, in order to be successful in the best sense. Heretofore we have been obliged to depend upon the amount of heterophoria we could find, and upon the power of the various muscles to overcome prisms, in order to ascertain how much we have done by tenotomies in the way of adjusting the eyes to binocular vision. Those who have followed Dr. Stevens carefully have learned that he does not make statements or recommendations without thought, and we apprehend that the use of this instrument will supply the missing link in the accurate adjustment of the visual axes in cases of heterophoria.

CHRONIC GLAUCOMA.

At the last meeting of the British Medical Association Mr. Nettleship called attention to the fact, that, in chronic glaucoma, operations are often negative in result, and occasionally harmful; and that the progress of the disease is so slow, in now and then a case, lasting ten years or more before vision is destroyed, that if an operation has been performed early it could hardly be said to have had any share in the result.

But, as a rule, Mr. Nettleship believes that early operations are best; and when both eyes are affected he chooses the better eye for operation first. He believes that waiting until the vision in an eye is so materially injured as to drive the surgeon and patient to action is largely responsible for the general disbelief or weak belief in the benefit to be derived from operative interference in this disease.

As portions of the iris have often undergone a process of atrophy in chronic glaucoma, Mr. Nettleship calls attention to the advisability, recognized by ophthalmic surgeons in general, of removing its most healthy looking portion.

In the discussion following the reading of the paper Mr. Critchett dwelt upon the importance of forming a cystoid cicatrix in all cases, if

it could be done, and said that any ophthalmologist who could devise a sure method of forming such a cicatrix would deserve the lasting gratitude of his countrymen.

VARYING EFFECT OF TENOTOMIES IN HETEROPHORIA.

At the last meeting of the American Medical Association Dr. Theobald, of Baltimore, stated that tenotomies for heterophoria often produced little or no effect, for causes imperfectly understood. He enumerated some causes for the negative results obtained, stating that operations affect the muscles of a prominent eye more than one that is deep-set; that a myopic eye is more affected than one that is hypermetropic, and that much depends upon the firmness of texture of Tenon's capsule. He had found the least effect from the operations for esophoria.

He left out one of the most prominent causes of failure in these operations, namely, want of power in the opposing muscles. If a patient has an esophoria of twelve or fifteen degrees, with adduction equal to thirty or forty, and the abducting power not more than two or three degrees, the external recti may recover some power when the internal recti are severed, and they may not.

The writer once had a case of esophoria of this description; and after completely severing both internal recti twice, at intervals of several months, loosening Tenon's capsule as thoroughly as possible each time, the power of adduction was brought somewhere near to a normal standard. The adduction in this case is at present 25 degrees; the abduction being about 6; but when the patient is run down in health, the power of abduction will sink to two or three degrees.

If Savage's method of muscle shortening had been known when these operations were performed, it would most certainly have been employed, as it has been successful in many cases since that time, in the writer's practice. The older methods of advancement of the ocular muscles are too uncertain in their results to admit of their use in such cases.

German and Italian

Translated by DR. F. E. CHANDLER.

A CASE OF SYRINGOMYELIA IN A CHILD.

E. C., a boy 6 years of age, was brought to my dispensary on April 27, 1895, for treatment of obstinate diarrhoea. The looks of his hands made me think that he had some other trouble as well, and I proceeded to make a thorough examination of him, with the following result:

The parents of C. are natives of Savoy, but have lived in Geneva for several years. They never dwelt in any other country, and present no signs of nervous or other troubles.

The personal antecedents of C. are as follows: Only child, he was born at term the delivery, cephalic, was difficult, the head passing out very slowly. Whether or no the midwife who assisted the mother used violent and intempestive maneuvers is difficult to determine. Be this as it may, the child was in a state of blue asphyxia.

He was fed from a spoon; digestive troubles rather frequent. He cut his first tooth when between 8 and 9 months old; he only commenced walking last year. In 1893 he had a severe burn from a hot brick that was placed in his bed; treated at that time in the hospital of Gex, by Dr. Bollivet, he was operated upon for a phymosis that caused him difficulty in urinating; at this epoch two cauteries were applied to his saerum.

In 1894 measles, without particular incident; whooping cough, in the first months of 1895.

It is impossible to give the precise date of the commencement of his present malady; it is positive, however, that his mother had noticed for more than two years that he burnt himself frequently without

seeming to feel any pain and that whitlows had often formed on his fingers.

The child is of medium size, emaciated; skull and face normal, as is also the palate; dentition bad.

Moderate scoliosis, with convexity directed towards the right; thorax depressed, on a level with the epigastric hollow; no rachitic deformities.

Hands large (cheiromegalia), short, cyanosed; the left hand presents the following lesions: The terminal phalanx of the index finger has almost entirely disappeared; a little bit of nail still remains (old whitlow); the terminal phalanx of the medius is separated from the rest of the finger by a well pronounced crack. The extremities of the thumb, annular and little finger are swollen and the nails curved in.

On the right hand the terminal phalanx of the thumb has disappeared (old whitlow); index and medius still intact; annular and little finger have remnants of thickened nails.

The thenar and hypothenar eminences are as little marked as the other muscles of the upper limbs, but do not present distinct signs of atrophy.

The lower limbs do not show rachitic deformities; the muscular masses are equally of little volume; the feet are cyanosed, always cold, rather flat, but can be elevated without difficulty (absence of paralysis of the extensors). The skin on the front of the knee shows traces of ancient wounds; the nails of the great toes are thickened; the last phalanx of the right fifth toe does not exist. It was lost after a severe burn.

When on his feet the child has a tendency to lean forward; he walks

with his legs separated and strikes his heel like a person with ataxia; Romberg's sign very distinct.

Tactile sensibility is normal; sensibility to pain is much diminished in the hands and feet; thermo-anesthesia seems to exist; anyhow, the child distinguishes with difficulty a hot from a cold object. The patellar reflexes are abolished. No incontinence of urine, but incontinence of fecal matter which is lenteric. The other organs present nothing in particular.

Subsequent examinations of the sensitiveness gave no very precise results, which is always probable when we seek the variations of this faculty in a child; exact replies being by no means easy to obtain. What continues in every case is the analgesia of the whitlows, that still develop, and of the burns that the child gets.

In July, increase of volume with redness of the right annular. The boy is sent to the Children's Hospital, where he is examined by MM. E. Revilliod, Martin and Binet, who think that it is a case of Morvan's disease.

On October 18, I see my patient once more. The terminal phalanx of annular has disappeared; the swelling and a bony fistula remain; the whole of the little toe has gone.

Now (Nov. 1, 1895) all the fingers of the left hand have lost completely, or nearly so, their last phalanx; the right medius shows signs of a bone whitlow, which is opened.

Examination with electricity, carried out as completely as possible, seems to show that there is no degenerative reaction and that the muscles contract in proportion to their volume.

To sum up, we have a child 6 years old, presenting as essential troubles:

I. Deep whitlows, bony, multiple, developing without pain.

II. Complete analgesia, manifested especially by burns and coincident with integrity of tactile sensibility.

And as accessory symptoms:

(a) Dorsal scoliosis.

(b) Abolition of patellar reflexes.

(c) Romberg's sign.

(d) Incontinence of fecal matter, or at least excessive relaxation of the sphincter ani.

These different symptoms may be found in Guinon's article on Syringomyelia, in Vol. VI, of the *Traite de Medicine*, under the following heads:

Posterior polyomyelic symptoms: namely, analgesia with probable loss of thermic sensibility with conservation of the tactile sense.

Median polyomyelic symptoms; State of the skin and subjacent tissues.

Posterior leucomyelic symptoms: Romberg's sign, abolition of patellar reflexes, inco-ordination of movement.

Exceptional symptoms: Incontinence of fecal matter.

This discussion brings us face to face with two possible diagnoses: Syringomyelia, because of the conservation of tactile sensibility; the dissociation of thermic sensibility and the signs of a disease of the posterior columns; Morvan's disease because of the multiple and analgesic panaritias.

The unicity or duality of syringomyelia and Morvan's disease have been much discussed, and at the present time the majority of observers are in favor of the second hypothesis; subsequent autopsies can alone settle the question.

My observations may be placed in the category of those intermediate cases which are defined by Charcot as Morvan's type of syringomyelia.

Now the question of its etiology: as far as I am aware, no case has ever been published concerning so young a subject.

Can difficult birth be regarded as a cause of hematomyelia? This question is by no means settled. The data collected by Minor (I) prove the characteristic symptoms of syringomyelia may come on in transmatism following injury to the spinal column.

Minor cites a case with autopsy where he found, besides a fracture of the last dorsal and first lumbar vertebrae, a hemorrhage at this level ex-

(I) Actes du Congrès international de Berlin. Vol. IV, p. 4. (II) Congrès médical de Bordeaux, 1895.

(I) Congrès Médicale de Bordeaux, 1895.

—Revue Med. de la Suisse Rom.

tending downwards as far as the sacral plexus (queue de cheval), and upwards as far as the exit of the accessorius passing along the left posterior cornu with participation at intervals of the posterior half of the anterior cornu and of the commissure.

In addition to this there was a dilation of the central canal, especially in the neighborhood of the points where hemorrhage was most pronounced.

In this way the presence of symptoms of syringomyelia in certain cases of traumatism can be accounted for.

We may also note the fact that Grasset (II) thinks that those forms of syringomyelia which are caused by "cavitary" myelitis come from infection. Mayet (I) says that while experimenting with inoculations of unfiltered cancerous juice in a rat, he obtained unmistakable symptoms of syringomyelia; the autopsy showed a distinct central cavity.

PERMANGANATE OF POTASSIUM FOR BURNS.

Picric acid has often been recommended for use in burns, but it has the drawback of forming powerful explosives. Permanganate of potassium is perfectly harmless and may be advantageously employed for the same purpose. M. Nodon, electrician and chemist, who fathers the idea, states that he has often had occasion to use it in cases of burns produced by electricity, and can testify to the good results obtained from its use. The solution of permanganate must be applied as soon as possible after the accident and continued for several moments. The affected part is colored black by the formation of peroxide of manganese, the intense burning pain ceases almost immediately, and one or two days later the destroyed tissues are reformed, and all traces of the accident have disappeared.

As there is no factory laboratory, however modest, that does not have

the permanganate among its chemicals, the suggestion of M. Nodon is good to remember.

—Le Progres Medical.

MORTALITY FROM DIPHTHERIA SINCE THE INTRODUCTION OF THE SERUM.

Counting the cases of mortality from diphtheria, in France, during the first semester of the years 1888 to 1894, Mr. H. Monod found the average to be 2,627. During the first semester of 1895 it was only 904 deaths or a diminution of 65.6 per cent. If we consider that diphtheria is more common in the country than in the towns, we may figure 15,000 the number of lives saved in France by the use of the serum.

—Le Progres Medical.

THE ACTION OF PARACHLOROPHENOL IN TUBERCULOSIS.

Dr. A. Sprengler, (St. Petersburg Archives of Biological Sciences, T. iv I), says: "As has been demonstrated by the experiments of Prof. Karpow, parachlorophenol has the power of disinfecting the anthrax bacillus. Tchourilow has used it with success in erysipelas; Elsenberg in the treatment of lupus; Dolganow in serpigenous ulcerations of the cornea; Simanowsky used it in the treatment of tuberculous diseases of the larynx and upper air passages; Ch. Girard advised its use in surgery." Dr. Sprengler, who is Simanowsky's pupil, has undertaken to complete his master's researches by studying this drug clinically in Simanowsky's wards, while carrying on simultaneous bacteriological investigations in Nencki's laboratory.

For his experiments, S. used pure cultures of the tubercle bacillus and sputa from consumptives, with subacute phthisis, whose lungs were badly affected. Saturated aqueous solutions of parachlorophenol were prepared as follows: Twenty cc. of parachlorophenol crystals were melt-

ed on the sand bath and mixed with 400 cc. distilled water; the mixture heated without boiling and cooled in water. The liquid was now left to stand for 24 hours and filtered after decantation. A 0.0198 per cent. solution was thus obtained. This was used on both the cultures and the sputa. After a short time cultures and sputa were taken from the solution and washed in three tubes of water in order to remove all the parachlorophenol.

They were then diluted in distilled water and injected into guinea pigs. Other guinea pigs received injections from the same cultures and sputa, which had not been treated with parachlorophenol. These latter guinea pigs were infected, while nothing happened to the animals who had received injections of the cultures or sputa, sterilized with parachlorophenol.

The sterilization of the sputa was more difficult than that of the cultures, probably on account of the presence of the mucous and albuminoid ingredients which obstructed the penetration of the parasiticide.

Numerous clinical observations collected and analyzed in this memoir, show the favorable action of this treatment in tubercular affections of the larynx.

Dr. Sprengler closes with the following conclusions:

1. Solutions of parachlorophenol in solutions of 10 per cent. or over, also even pure, applied locally by swab or by friction, cause a cicatrization of superficial and deep tubercular infiltrations.

2. No phenomena of irritation are present.

3. Solutions of parachlorophenol in glycerine have an anesthetic property in tubercular affections; this anesthesia lasts several days, while anesthesia from cocaine is of short duration.

4. Parachlorophenol has the advantage over lactic acid and the operative treatment in that it can be safely applied to all forms and degrees of laryngeal tuberculosis, even in the very last stages.

5. It acts favorably upon, and of-

ten cures, lupus of the mucous surfaces.

6. Parachlorophenol is one of the most energetic disinfectants of tubercle bacilli, both in pure cultures and in sputa.

TREATMENT OF SCROFULA WITH MERCURY.

E. Giampietro (*Gazetta degli Ospedali*, 21, xi, '95), writes: "The preparations of iron formerly so generally used in scrofula often had an unfavorable action in the torpid forms of the disease, the local action of the drug upon the glands and mucosa being distinctly bad.

Treatment with sulphur was only occasionally successful.

Much better results are obtained from the use of mercurials.

In scrofulous, glandular tumors, a daily injection of one cc. of a one per cent. sublimate solution is made. After a while a distinct improvement will be noticeable. Further treatment should be one mg. sublimate dissolved in 50 cc. water, with the addition of one gramme NaCl. Fifty grammes decoctum cinchona must be given every morning. With this treatment the chronic catarrh will be cured in a relatively short time, and the general condition much improved.

This form of treatment was tried by G. in 48 cases of scrofula and in three cases of lupus. The three cases of lupus were cured by curetting, cauterizing with Ag. N° 03, and the daily internal administration of one mg., Hg. Cl₂. Treatment of 370 cases of otorrhea of tubercular origin with Hg Cl₂ resulted in the complete cure of 360 of them.

HOW TO RECOGNIZE DAMPNESS IN DWELLINGS.

Place one Kg. freshly slacked lime in the suspected room, and then hermetically close doors and windows. In 24 hours, weigh the lime. If its weight has increased more than 10 grammes (one per cent.), the room is too damp for health.

—Therap. Wochensh.

Current Surgical Literature.

T H MANLEY, M. D., New York, Editor.

ICHTHYOL IN THE TREATMENT OF BURNS.

The *Semaine medicale* for November 13, publishes an article on this subject by M. L. Leistikow, of Hamburg, an abstract of which appears in the *Revue Internationale de Medecine et de Chirurgie Pratiques* for December 10. The writer states that the author's experience with this drug for a period of six years has shown that of the numerous means recommended for the treatment of burns ichthyol is the best and the most practical. It allays the pain and causes the disappearance of the congestion as well as of the edema of the skin, not only in burns of the first degree, but also in those of the second degree, provided that all the blisters have been previously opened. In the latter case the regeneration of the epidermis begins very soon under the influence of the ichthyol; at the same time desquamation is produced, or any eschars which may exist fall off. For burns of the first degree M. Leistikow employs the following mixture: Zinc oxide, 75 grains; magnesium carbonate, 150 grains; ichthyol, from 15 to 30 grains. For burns of the second degree he uses the following paste: Zinc oxide, 75 grains; prepared chalk, powdered starch, linseed oil, and limewater, each, 150 grains; ichthyol, from 15 to 45 grains. The applications of powder and paste are renewed every twenty-four hours. In cases where the inflammatory symptoms are very intense the powder and the paste may be combined as follows with good results: The burned parts are covered with the powder, over which a layer of the paste is applied.

—N. Y. Med. Journ.

A CASE OF UMBILICO-VESICAL HERNIA.

According to *La Semaine Medicale*, August 21, Dr. Lannelongue reported to the Congress of Gynecology, Obstetrics and Pediatrics recently held at Bordeaux, the following interesting case: Some years ago a woman brought to him a male infant, aged 3 months, which passed water, both through an umbilical appendix resembling a penis, and by the natural organ, which was in its proper place. The jet which came from the umbilical canal described a curve more than 30 centimeters in diameter. On examination, it was found that the apparent abnormal pelvis was an umbilical hernia caused by the persistence of the urachus. A urinary fistula had been produced on the separation of the umbilical cord. The child subsequently died, and the author had an opportunity to make a necropsy. The bladder was injected, and it was then seen that the viscus was prolonged by a channel as large as the forefinger, namely the urachus, up to the umbilicus. The channel extended into the external appendix, where it opened by an oblique orifice resembling the meatus urinarius. The contractions of the bladder in micturition caused a stream in both directions, umbilical and urethral, hence the double jet of urine seen from time to time; this, however, was exceptional, as the musculo-elastic ring of the umbilicus fulfilled the function of a sphincter and prevented the escape of urine through that orifice. The author suggests that this case once more shows the necessity of tying the umbilical cord only after having satisfied one's self that there is no hernia at the proximal end.

SEROTHERAPY IN CANCER.

J. Hericourt and C. Richel describe (Compt. Rendus) the treatment adopted in a case of sarcoma, serum obtained from animals, into which the extract from a tumor had been injected, being used with good results. In general, the results are: Pain has been diminished and ulcerations ameliorated, tumors reduced in bulk, the progress of the disease checked and the general conditions improved. No absolute cures have been effected, and it is difficult to say if the serum is a specific or not. The effects are however, such as almost to approach the cure of the disease.

—American Druggist.

A REMEDY FOR BLACK EYE.

There is nothing to compare with the tincture or strong infusion of capsicum annuum mixed with an equal bulk of mucilage or gum arabic, and with addition of a few drops of glycerine. This should be painted over the bruised surface with a camel's hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is afflicted, this treatment will invariably prevent blackening of the bruised tissue. The same remedy has no equal in rheumatic sore or stiff neck.

— Medical Progress.

CHILBLAINS.

Professor Boeck, of Christiania, uses for chilblains: Resorcin, ichthyol and tannin, each 30 grains; water 150 grains; painting the affected parts at night. This discolors the skin, so that if the affected part be an exposed one the following may be substituted: Resorcin, 60 grains; gum arabic, 38 grains; water, 115 grains; talcum powder, 15 grains.

—Brooklyn Med. Jour.

CONTRACTED BLADDER TREATED BY GRADUATED FLUID DILATATION.

BY MAYS ROBINSON, F. R. C. S.

In a patient presenting symptoms of vesical calculus a sound was passed in order to determine the size

of the bladder. As soon as the sound entered the bladder it impinged against a hard calcareous material, and bimanual examination revealed the fact that there was practically no bladder, that organ being merely represented by a small hard lump about the size of a walnut. The urethra was dilated and phosphatic concretions lining the minute cavity were scraped away. The bladder was then found to hold only one-half ounce of fluid. There was incontinence of urine both before and after the operation. The bladder was irrigated with boric acid solution daily, and on each occasion the urethra was compressed around the nozzle of the syringe, and moderate force was used to increase the capacity of the organ. In a few days incontinence ceased. Later, ether was given and the bladder was distended with boric acid solution, and it was found that the capacity had increased to two ounces. A later dilatation without ether started up some vesical irritability, but in spite of this fact, improvement continued, and the patient was discharged with a bladder able to hold eight ounces of urine, which was normal. In this case, as in all cases in which there is no contra-indication, salol and boric acid, each five grains, were given three times daily. The use of these drugs has done much to abolish post-operative urinary fever.

TREATMENT OF BUBOES BY INJECTION OF VASELINE AND IODOFORM MIXTURE.

M. Fontau, professor of surgery at the Military School of Medicine, at Toulon, in the "Archives de Med. Militaire," gives the following as the technique of a method which, in his hands, has acted like a charm in curing buboes.

First—Thorough scrubbing of the part with soap suds.

Second—Puncture, if the skin is thin.

Third—Complete exposure of all purulent and infected fluids.

Fourth—Injection of iodoformed vaseline—1 to 10 parts—warm.

Fifth—Dressing with the bichloride dressings.

After evacuation of the pus, it is important that all the sinuities of the abscess be thoroughly irrigated and cleaned out by bichloride solution. The cavity must be then well distended with warm iodoformed vaseline, the edges of the incision brought together and all well retained with special bandages.

Journal de Paris, Sept., '95.

TREATMENT OF GONORRHEAL RHEUMATISM.

Dechard (These, de Paris) after having diligently tried the various medicaments for gonorrheal rheumatism, is of the opinion that mercury, by hypodermic injection, or inunction over the articulation, stands in the front rank. It seems to have an electric action for the poison of the disease.

Revue de Chirurg., Dec. 1, '96.

PSEUDO-NEOPLASTIC TUMORS OF THE ORBIT.

M. Panus (Arch. D'Ophthalm., Sept., 1895), calls attention to the common error of too readily condemning all larger orbital tumors as malignant; as many are syphilitic, or toxic. The principal avenue of infection is through the various or lymphatic plexuses, in the mucous membranes, producing infective tumors. In all cases of reputed sarcomatous tumors of the orbit we should not only endeavor to definitely decide diagnosis by a histological examination, and test the character of the lesion by treatment before considering surgical measures of relief. Mercury, the iodides and arsenic should each be tried; and the toxines of erysipelas tried; or the pus cultures of the streptococci. The serum streptococci is less dangerous and we may augment its toxicity by the addition of the coccus-prodigiosus. The injection may be made directly into the tumor or at its periphery through the vessels. Surgery is often im-

portant in many of these cases of supposed myelomata and lymphadenoma, though it is proper to utilize it after all other therapy fails.

SURGERY OF THE URINARY PASSAGES.

Guyon has made many experiments of animals with a view of determining the relative value of the various operations for enlarged prostate, and has come to the conclusion that we can accomplish all the benefits of a castration, with none of its dangers, by a simple resection of the vas-deferens.

Pilcher calls attention to the dangers of castration for prostatic hypertrophy and affirms that it is useless in any event in true adenoma.

Faulds claims that castration for prostatic enlargement is always dangerous and generally without utility. He never saw atrophy of the gland follow, and believes that it is a procedure which should not be permitted.

—Revue de Chirurg., Dec., '95.

NEW METHOD OF TREATMENT FOR PYLORIC STENOSIS.

Ogston has lately published his experience with a new method of dilating the contracted pylorus. He begins by having the patient swallow a celluloid ball of small dimensions, encrusted with sugar. This is repeated every other day, until one of large size is swallowed. As they pass the strictured pylorus there is a sharp colicky pain. The author employed this means in four cases. Only one persisted in treatment. With him the result was a practical cure; the stricture having been stretched from 16 to 40 millimetres.

—Lancet, p. 739, vol. 195.

TRANSPLANTATION OF LARGE SKIN GRAFTS.

M. Krause, of Altoona, has for several years had excellent success in the treatment of large, lupoid ulcers on the face and legs, in burns, with large flaps of skin transplanted from other parts of the body. Rigorous asepsis is practiced, the integu-

ment is removed after the method of Thiersch; only the section is deeper, through the derma. The operation is dry; only a weak salt solution being employed for sponging. Hemostasis must be complete, but care

must be taken not to unduly press on the surface of the capillaries. The borders are sutured in place, and the whole kept in position by the pressure of light dry dressings.

—Bulletin Med., 2 Oct., '95.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

CHOLERA AND PREGNANCY.

Kovalsky (Repert. Univ. d'Obstet. et de Gynec., October 25, 1895) after considering the experience gained in Russia on this question, concludes that pregnancy does not appear to predispose to cholera, though the small percentage of cholera cases amongst pregnant women is explained by the small number of such women relatively to the general population. The prognosis is extremely grave for the fetus, and the mortality of 81 per cent. is, perhaps, lower than might be expected. As for the mother, the danger does not seem much greater than in a non-pregnant subject; 57.8 per cent. is the proportion, according to experience, in Russia. Between 20 and 40 seems the most susceptible age. This represents the greater part of sexual life. It is not clear why younger pregnant women should be less subject to cholera. Most probably the truth is explained by the number of married women over 20 being relatively larger. Kovalsky frankly admits that no ratios of any kind of scientific value can be established between the presence of cholera and the period of pregnancy, the previous sexual history of the mother or any other essential obstetric factor—even the possibility of abortion.

THE UTERUS IN ECTOPIC GESTATION.

Pilliet (Ann. de Gynec. et. d'Obstet., October, 1895) has studied the histology of the modifications which the uterus undergoes in tubal gesta-

tion. He finds that the development of a decidua in its empty cavity during ectopic pregnancy is more than a pathological phenomenon; it is a distinct clinical complication. As long as the decidua remains in place the uterus is practically in a condition of subinvolution; hence both hemorrhages and membranous dysmenorrhea may occur. When the decidua has been shed there is danger of diffusion of metritis to the whole uterine muscle. Pilliet adds rather significantly that the etiology and pathology of endometritis are both obscure, and that probably ectopic gestation, overlooked in the early stages, may account for many peculiarities in cases of endometritis hitherto hard to explain.

OVARIOTOMY IN A CHILD OF 6.

Rein (Repert. Univ. d'Obstet. et de Gynec., October 25, 1895) operated successfully, at Kieff, on a girl aged 6. The tumor was a multilocular cyst of the left ovary. On the third day the patient's period ("regles") appeared. It is noted in the report that puberty was premature in this case, Rein believing that the abnormal phenomenon was the cause of the development of the cyst. The author, however, does not state that any symptom of precocious maturity was noted before the operation. Recovery in this instance was rapid. Childhood and infancy, Rein remarks, are favorable to laparotomy. Fenomenoff has successfully performed abdominal section on a newborn child.

—Brit. Med. Jour.

DIGITAL EXPLORATION IN MID-WIFERY.

Crouzat (Rev. Obstet. Internat., October 21, 1895) does not agree with certain German obstetricians who would discard digital exploration in normal labor, relying on abdominal palpation. The diagnosis of normality may demand the introduction of the finger into the vagina. Crouzat's principles simplify digital exploration and guard its dangers. Vaginal examination, he thinks, should be made as seldom as possible. One exploration at the beginning of labor and another immediately after the rupture of the membranes are usually sufficient. His practice is to make the external parts antiseptic; then the hands and forearms are washed and brushed thoroughly. The nails must be specially attended to. The washing is afterwards repeated in a 1 in 1000 solution of sublimate. Great care in the introduction of the forefinger is strongly advocated. It should be dipped in sublimated vaseline and guarded by the thumb and the other fingers whilst the hand is passed under the clothes and near the patient's thighs. On reaching the perineum the labia are parted by the thumb and middle finger. The forefinger is lastly introduced into the vagina without having touched any part of the patient or her clothes since the instant it was made antiseptic.

—Brit. Med. Jour.

EDEMA AND PROLAPSE OF CERVIX IN PREGNANCY AND LABOR.

Swift (Australasian Med. Gaz. September 20, 1895), in reference to Geyl's recent memoir (Epitome, July 20, No. 55), believes that Geyl is in error in asserting that the above condition is so very rare. More probably many cases have not been reported. Swift has seen three cases during the last four years. The first was in the third month of pregnancy; there was much bearing down. An edematous cervix protruded from the vulva. It was easily replaced and the patient was kept at rest. A three months' fetus came away on the night after reduction of the cer-

vix. On the same evening Swift was called to another and similar case. The patient was five months pregnant, and thought that the womb had fallen. The cervix was extremely elongated and edematous, protruding through the vulva. It was reduced without difficulty; the patient remained in bed for two days. She was delivered easily at term. The third case was six months pregnant. The womb was said to be down, and there was troublesome smarting. Swift found the cervix outside the vulva very edematous and excoriated in several places from chafing. Reduction and pessaries proved of no permanent benefit. A T-bandage and a pad were applied and the patient kept at rest till term. The os dilated easily, and labor was in no way impeded.

—Brit. Med. Jour.

DERMOID OVARIAN CYST OF UNUSUAL SIZE.

Ullman (Wiener Med. Presse, September 22, 1895) states that a married woman, aged 53, recently came under Professor Hofmohl's care for a large ovarian tumor. She said that it had only been growing for a year. The abdominal swelling was marked, the skin shiny, the subcutaneous veins dilated. The uterus was drawn up high, and measured 2 1-2 inches. Part of the tumor lay in Douglas' pouch. When the cyst was exposed and tapped, 13 1-2 pints of a greasy fluid escaped. Great care was taken to keep the fluid from escaping into the peritoneum. There was a soft parietal adhesion, easily separated. The pedicle was very broad. Three interlocking ligatures were applied, and it was divided by a thermocautery. A drainage tube was applied, and left in for five days. The patient made a very good recovery. The tumor weighed over 35 pounds. It consisted chiefly of one large cavity, which had contained the greasy fluid, and still held masses of fat and hair. The remainder of the tumor, as is usual in dermoids developing late in life, was multilocular and glandular as in the commoner form of cyst.

—Brit. Med. Jour.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

- ASEPIN.** (Brom-Acetanilid.) Colorless prisms insoluble in W. Anodyne, analgesic. Dose: 1-2 grs. See Antiseptin.
- ASEPTOL.** (Soziolic, Sulphobenzoic or Orthophenol-Sulphonic Acid.) Pure; small deliquescent scales forming a pinkish liquid. Very soluble in A., water. In commerce as 33 1-3 per cent. solution. Uses same as carbolic acid, but less poisonous internally, and less irritating externally.
- ASPARAGIN.** From asparagus officinalis. Beautiful, colorless, odorless crystals, soluble in hot water, acids and alkalies, less so in cold. Insoluble in A. E. Diuretic. Dose: 1-2 to 2 grs. daily.
- ASPIDOSPERMINE.** Commercial mixture of Quebracho alkaloids. Grayish yellow powder, slightly soluble in water. Yields soluble salts with acids. Tonic, febrifuge, respiratory stimulants (asthma, etc.) Dose: Commercial article 3-4 to 1 1-2 grs. daily. True alkaloid 1-4 to 1-2.
- ATHEROSPERMA MOSCHATA** (Australian Sassafras.) The bark is employed as a tea in Australia.
- BAPTISIN.** Glucoside from Baptisia tinctoria. Yellow resinous powder of strong odor. Purgative, in large doses emeto-cathartic. Dose: 1 1-2 to 4 1-2 grs.
- BEBEERINE-ALKALOID.** (Beberine, Bibrine Buxine.) From Nectandra Rodiaei. Yellowish brown bitter powder. Soluble in A., E. Insoluble in cold water. Tonic. Febrifuge. (Periodic migraine, neuralgia, etc.) Dose: 1 to 10 grs. Not to be confounded with Berberine.
- HENZACETIN.** (Acetamido-Methyl-Salicylic Acid.) White crystals, Soluble in A., slightly in water. Forms salts with bases. Prompt antineuralgic.
- BENZANILID.** (Phenyl-Benz-Amide.) Pinkish white crystalline powder. Insoluble in water, soluble in 58 A. Mild antipyretic. Dose: 1 to 10 grs. Maximum daily dose 48 grs.
- BENZONAPHTHOL.** (Beta-Naphthol Benzoate.) Analogous to betol. White crystalline powder or long needles; slightly aromatic in odor, soluble in E., C. hot A. Almost insoluble in cold A. Insoluble in water. Intestinal antiseptic, diuretic. Dose: 50 to 75 grs. daily in small divided doses on powder or emulsion.
- BENZO-PHENONEID.** Non-irritant germicide similar to pyocetanin. Corneal ulcers, purulent keratitis, etc. Soluble in 100 water.
- BENZOSOL.** (Benzoyl-Guaiacol, Guaiacol Benzoate.) White aromatic powder, soluble in C., E., hot A. Almost insoluble in water. Antiseptic (Pulmonary tuberculosis.) Dose: 4 grs. 3 times daily, gradually increased up to 12.
- BENZOYLEUGENOL.** Neutral, acidular, colorless, odorless, slightly bitter crystals. Insoluble in water, freely soluble in A., E. Anti-tubercular.
- BENZOYL TROPEINE.** Silky needles forming soluble salts. Local anesthetic.
- BETOL.** (Beta-Naphthol, Salicylate, Naphthalol, Naphtho-Salol.) White crystalline, insipid powder, almost odorless, soluble in

E. C., less so in A., insoluble in water or glycerine. Intestinal antiseptic, catarrh, etc. Like salol. Dose: 4 to 8 grs. 3 or 4 times daily.

BISMUTH, BETA-NAPHTHOLATE. Brown odorless, neutral, insoluble powder, containing 23 per cent. beta-naphthol. Intestinal antiseptic, like betol, salol, etc. Dose 15 to 30 grs.

B. SALICYLATE. Basic, 64 per cent. (Generally termed bismuth salicylate.) Whitish, odorless, tasteless, crystalline powder. Soluble in acids and alkalis, with decomposition. Insoluble in water, A. E. Antiseptic disinfectant. (Diarrhea of phthisis, typhoid fever, enteritis, etc.) Dose: 4 to 6 grs. (children 1-2 to 1 gr.) every 2 hours.

B. SUB-GALLATE. (Basic-Bismuth Gallate. See Dermatol.)

B. SUB-IODIDE (Oxy-iodide.) Brownish-red amorphous, inodorous, insoluble powder. Antiseptic. Applied pure, like iodoform (Gonorrhea 1 per cent. mixture). Dose: Internally 4 to 9 grs. daily. (Gastric ulcers, typhoid fever, etc.)

B. TRIBROMPHENOL. Yellow, odorless, tasteless, insoluble powder. Internal antiseptic (Cholera, etc.) Doses: 75 to 100 grs daily.

BISMUTHOL. (Bismuth-Sodium-Phosphosalicylate.) White, crystalline, odorless powder of rather agreeable taste. Soluble in W. Antiseptic, antipyretic, 20 per cent. dusting powder, or 1 to 10 per cent. solution topically.

BLANCOLINE. A perfectly white, odorless and neutral petroleum jelly, corresponding to the G. P. and U. S. P. ointment base (solid) and oil (liquid).

BOLDINE. Alkaloid. From Boldoa Chiliensis. White, turning dark on exposure. Soluble in A. E., C. and in caustic alkalis. Hepatic tonic and hypnotic (Biliary calculi, and disease of liver and

bladder). Dose: 3 grs. daily in capsules or in 5 per cent. enema.

BORAL. (Aluminum Borotartrate.) Colorless, sweetish, astringent crystals, freely soluble in W. Powerful, harmless disinfectant. Topically in powder or in diluted glycerin solution in inflammations of throat and nose.

BROMAL. Analogue of chloral. Oily liquid, of peculiar penetrating odor and sharp burning taste. On exposure absorbs moisture and is converted into the crystalline hydrate. Not to be confounded with Bromol, see below.

BROMALIN. (Brom-Methyl-Form, Hexamethylene. Tetramintromethylate.) Colorless scales or crystalline powder easily soluble in W. Almost tasteless sedative; substitute for bromides. Dose: 30 to 60 grs.

BROMAMIDE. (Mono-Brom-Phenyl-Acetamide.) Crystals, soluble in C. E., oils, boiling A. Insoluble in water. Contains 75 per cent. bromine. Antipyretic, analgesic, antirheumatic. Dose 10 to 15 grs.

BROMETHYLFORMINE.—A derivative of formal sedative, anti-epileptic. Dose 30 to 60 grs.

BROMOL. (Tribromphenol).—White crystalline powder, or soft white crystals, soluble in A., E., C., oils, less so in glycerin; almost insoluble in water. Disinfectant, surgical and intestinal. (Wounds, diarrhea, typhoid fever, etc.) Externally in two to three per cent., oily solution, in talcum, or in 4 per cent. glycerin solution (diphtheria). Internally 11-2 grs. four or five times daily. Not to be confounded with bromal, which see above.

BUTYL-CHLORAL-HYDRATE. (Croton-chloral).—Colorless crystals, resembling chloral in odor, very soluble in A., less so in dilute A. Anodyne anesthetic (neuralgia of the fifth pair, facial neuralgia of anemic persons), soporific doses 10 to 15 grs.

(To Be Continued.)



Miscellany.

THE NEW ORLEANS MARDI GRAS.

This famous festival of King Carnival, at New Orleans, will be held February 18. As one of the most valuable restoratives is mirthful recreation, no more pleasurable trip could be made than this, which could be continued to Mexico or California, by that peerless "Sunset Limited" train over the Southern Pacific route. Read the full page announcement of this festival and this train in our advertising columns.

WORLD'S CONGRESS OF MEDICO-CLIMATOLOGY.

A national meeting of the Congress will be held in San Antonio, Texas, beginning February 20, 1896, and continuing for three days. Papers will be read by many of those in attendance, and the proceedings of the congress will be very interesting and instructive. All physicians in good standing are invited to attend. Membership fee is only \$5 for five years, payable in advance. Printed copy of constitution and by-laws will be sent upon application, with other matter relating to the congress.

Nearly seven hundred representatives have been appointed by the various State societies to date.

All members have equal rights and privileges.

A FEW REASONS FOR JOINING THE CONGRESS.

1. To acquaint you with facts in climatology as relating to the etiology of diseases and as a therapeutical agent.

2. Enabling you to apply this knowledge so as to give your patients the benefit of it.

3. To set forth the advantages of your own section or State as regards its climatic advantages.

4. To enable you to become acquainted with your brother practitioners in other sections of the country, and exchange views with them.

5. To afford you the opportunity to investigate climates and health resorts for yourself, when attending the annual meetings, which will be held in various seasons of the year in different sections of the United States, and at the same time enable you to see the country.

So that you may at least once a year take a much needed vacation.

For Pruritus and Ciliary Blepharitis:

R Neutral acetate of
lead 0.10 gm
Hydrochlorate of
cocaine 0.15 gm
White vaseline... 3.00 gm
M. Sig: External use.
—Sennaine Medicale.

Tooth powder:

R Precipitated chalk. 60.00 gm
Pulverized cam-
phor 10.00 gm
Saccharine 1.00 gm
M.
—Therapeutische Wochensch.

THE ALBERTO-LEVI PRIZE

We read in the Progres Medical, of December 28, 1895, that in public seance of December 23, the French Academie des Sciences awarded the Alberto-Levi prize of 50,000 francs to Prof. Behring, of Marburg (Hesse-Nassau), the discoverer of the anti-diphtheria serum, and to Dr. Roux, who introduced it into France. The remarkable thing about this is that a foreigner, and a "Prussian" especially, should receive the second largest prize that it is in the power of the French Academie des Sciences to award.

The "Prix Brebant" of 100,000 francs was not given this year.

For Physicians' Wives

FRUIT AS MEDICINE.

Why for ages have people eaten apple sauce with their roast goose and sucking pig? Simply because the acids and peptones in the fruit assist in digesting the fats so abundant in this kind of food. For the same reason at the end of a heavy dinner we eat our cooked fruits, and when we want their digestive action even more developed we take them after dinner in their natural uncooked state as dessert. In the past ages instinct has taught men to do this; to-day science tells them why they did it, and this same science tells us that fruit should be eaten as an aid to digestion of other foods much more than it is now. Cultivated fruits, such as apples, pears, cherries, strawberries, grapes, etc., contain on analysis very similar proportions of the same ingredients, which are about 1 per cent. of malic and other acids, and 1 per cent. of flesh-forming albuminoids, with over 80 per cent. of water.

Digestion depends upon the action of pepsin in the stomach upon the food, which is greatly aided by the acids of the stomach. Fats are digested by these acids and the bile from the liver. Now, the acids and peptones in fruit peculiarly assist the acids of the stomach. Only lately even royalty has been taking lemon juice in tea instead of sugar, and lemon juice has been prescribed largely by physicians to help weak digestion, simply because these acids exist abundantly in the lemon.—Popular Science Monthly.

SOME OPTIMISTIC PHILOSOPHY

Despondency is a violation of nature's law; her scheme is to grow; we are put here that we may unfold,

and help others to unfold, and optimism, cheerfulness, is the plant that would gladly grow upward, while pessimism, despair, is the gravitation that ever strives to drag it back.

If one would try to cultivate a liking for self-evident duties, that effort, too, would bring content, since real happiness is only the spark struck off from duty in performance.

A conducer of contempt is to find out what one is really good for (not what one would like to do, but what one really can do—they are quite different things), for everyone has a mission, be it ever so little a one, and then proceed to work on that line. The results accomplished in that way will impart a consciousness of being a success, and to be successful is to be happy.

The cure for despondency is first, activity; second, activity, and third and lastly and forevermore activity, and activity, moreover, in a form that will benefit the spiritual, mental and material natures of others as well as of ourselves. Our prayer should ever be for unflagging industry to express the very best that is in us, and ability to elicit it from others as well.

We alone divide up the time, and hence trammel ourselves. Time, in reality, is limitless and indivisible. We are in eternity now as much as we ever will be, since time is but a part of eternity. Do not the wise ones even say that death itself is but a lesser-known phase of life? Hence if our past has dissatisfied us, there is always a to-morrow, with its endless beauties and possibilities, in which we may begin anew our work of reformation.

As a general thing it is the lazy people who are the despondent people. If one is occupied one doesn't

have time to be melancholy. I sometimes think, indeed, that indolence is the arch sin. At any rate, nothing is truer than that Satan finds some mischief still for idle hands to do, and being dreary-minded is undeniably one of the most mischievous of all mischiefs, since it reacts not only on the culprit, but on everybody around him. Whoever, indeed, comes within his shadow is darkened.

—Jenness Miller Monthly.

THE CHEMICAL AND PHYSIOLOGICAL CHANGES IN MILK CAUSED BY BOILING.

In the British Medical Journal for December 14, Dr. J. L. Kerr states that there is reason for supposing that when fresh milk is ingested the living cells are at once absorbed without any process of digestion, and enter the blood stream and are utilized in building up the tissues. The casein of the milk is digested in the usual way of other albuminoids by the gastric juice, and absorbed as peptone. There is also absorption of serum albumin by osmosis.

The chemical result of boiling milk is to kill all the living cells, and to coagulate all the albuminoid constituents. Milk after boiling is thicker than it was before.

The physiological results are that all the constituents of the milk must be digested before it can be absorbed into the system; therefore there is a distinct loss of utility in the milk, because the living cells of fresh milk do not enter into the circulation direct as living protoplasm, and build up the tissues direct, as they would do in fresh unboiled milk.

In practice, he says, it will have been noticed by most medical practitioners that there is a very distinctly appreciable lowered vitality in infants which are fed on boiled milk. The process of absorption is more

delayed, and the quantity of milk required is distinctly larger for the same amount of growth and nourishment of the child than is the case when fresh milk is used.

A THINNING-DOWN PROCESS.

Banting, the artificial thinning-down process, is just now a craze in London, says an exchange. It is said that both men and women devote much time and anxious thought to the subject, and those physicians who make a specialty of reducing weight have reaped a harvest of profit. According to a correspondent, of the various systems in vogue the most efficacious seems to be that pursued and recommended by the fish regimen. The patient lives entirely on various kinds of fish, a small slice of wholemeal bread being permitted with each meal. British specialists deny to their patients any food containing either sugar or starch. Anti-fat dishes have largely entered into the menu of all well-ordered establishments, and toast has taken the place of bread. It is said that Dr. Zwiningen, Bismarck's physician, simply orders his patients to entirely forego any kind of liquid with their meals. By this means he claims to make the stoutest men become normal in size.—Philosophical Journal.

THE RETORT PERTINENT.

A young physician, who has just established himself, and with very little practice, is noted for his bragadocio. One of the older physicians, meeting him on the street the other day, asked how he was coming on. "I have got more than I can attend to," was the boastful reply; "I had to get out of my bed five times last night."

"Then why don't you buy some insect powder?"—Omaha Clinic.

The Times and Register.

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A CASE OF UNDESCENDED OVARY AND TUBES, WITH SACTO-SALPYNX PURULENTA PROFLUENS.

By M. L. HARRIS, M. D.

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Mrs. D., from a neighboring State, came to me in February, 1895, and gave the following history: Age, thirty-seven years; American, widow. At the age of thirteen years she began to menstruate.

Menstruation was normal, with the exception that the pain was always quite severe until her marriage at the age of twenty-six. She had a child one year after her marriage and a second one a year and a half after the first. No miscarriages.

She is a well-developed woman and, previous to her present trouble, always enjoyed good health.

Her illness dates back about seven years, when she was taken with severe griping pains in the abdomen, which was soon followed by vomiting.

There were two or three loose passages from the bowels, and then obstipation with considerable distention of the abdomen resulted.

The pain soon became localized in the right iliac region, where a distinct mass developed which was painful and tender, and which extend-

ed, according to her description, internal to and above the anterior superior spine of the ilium.

She had constant fever and was quite ill for about six weeks, when there was a sudden discharge of blood and pus per vaginam, after which she convalesced. She remained in fairly good health, with the exception of a little pain or soreness in the right iliac region upon exertion or straining, for about two years, when she had another attack similar to the first one.

These attacks recurred at varying intervals until the past year. For one year she has practically been ill all the time, having had five or six relapses during this time.

These attacks always began in the same manner. She had griping pain, gastric and intestinal disturbance, fever, swelling or tumor in the right iliac region, and was usually relieved by a discharge of pus through the vagina.

She had just recovered from one of these attacks when she consulted me. She was well developed, and

physical examination was negative until the right iliac region was reached. Here a roundish, oblong mass was distinctly palpable. Its long axis extended vertically and crossed a line connecting the anterior superior spine of the ilium with the umbilicus. About one-third of the mass lay above this line, and the remaining two-thirds below it.

Bimanual examination showed the uterus to be normal in size and mobility. No exudates could be felt in the pelvis. The vaginal wall was everywhere free, and no cicatricial tissue or adhesions were discovered, such as one would expect to find where an abscess had repeatedly discharged itself through this channel. As there was no discharge of pus at the time of the examination, and as the patient had not been seen at the time the discharge occurred, its exact point of exit could not be determined.

The absence, as stated above, of cicatricial tissue or adhesions about the vaginal walls made it probable that the discharge came through the uterus from the Fallopian tube. The occurrence, however, of a pyosalpinx or sactosalpinx purulenta which periodically discharges its contents through the uterus is extremely rare, and according to Martin, of Berlin (*Die Krankheiten der Eileiter*), the very few cases which have been reported recovered without operation. The clinical history, as given by the patient, corresponded very accurately with the history of chronic relapsing appendicitis. The periodical discharge of pus from the vagina seemed to favor a sactosalpinx purulenta profuens.

The mass corresponded so accurately in location and outline to such as are frequently felt in cases of chronic appendicitis, and the total absence on bimanual examination of pathological products in the pelvis, induced me before the operation to make a clinical diagnosis of chronic relapsing appendicitis.

A straight incision, such as is usually employed for the removal of the appendix, was made parallel to the right border of the rectus muscle and

directly over the mass. Upon opening the abdominal cavity the cecum presented and was raised upward and displaced outward, thus bringing into view the appendix, which was quite diminutive in size. It measured but about three centimetres in length, was perfectly normal in appearance and free from adhesions.

It lay directly on the mass, which proved to be the right ovary and distended ampulla of the Fallopian tube. The mass presented the usual appearance of a sactosalpinx purulenta.

The dilated tube embraced the anterior surface of the ovary, and was firmly bound to it by adhesions.

The entire mass lay above the iliac vessels and entirely outside of the true pelvic cavity. The ovary rested on the psoas magnus muscle, its upper limit being opposite the bifurcation of the abdominal aorta.

The attachment of the ovary posteriorly, corresponding to the ligamentum infundibulo-pelvicum, was rather broad, and extending externally became continuous with the internal layer of the ascending mesocolon, and superiorly with the inferior layer of the mesentery of the lower end of the ilium. The ureter descended posterior to the ovary, and entering the pelvis, followed its usual course.

The ovarian artery entered the infundibulo-pelvic ligament at the superior and internal angle, and the pampiniform plexus spread out posteriorly and internally. The ovary was about normal in size and appearance and had no corpus luteum.

The ampulla of the tube was dilated to the size of an adult thumb and measured about eight centimetres in length.

The isthmus was much longer than normal, and extended across the pelvis to the uterus, which occupied its normal location. There were no adhesions about the caecum, but this organ did not descend quite as low as usual. The left ovary and tube occupied their normal location.

The right ovary and tube were ligated off in the usual way and removed. The patient made an uneventful recovery.

This case presents two points of interest:

1. An undescended ovary and tube.
2. Sactosalpinx purulenta profluens.

As is well known, the ovaries and tubes in the embryo at first extend high up in the abdominal cavity, reaching as high as and even being overlapped by the lower end of the lungs. From this high position they gradually descend during the process of development until they reach the position within the true pelvis which they are found to occupy in the adult.

This so-called *descensus ovariorum* is not an active process on the part of the ovaries and tubes, but is due rather to a more rapid or, perhaps, better, a disproportionate development of the other neighboring parts of the body, until at the end of the developmental period, and the rearrangement of the relations of the various organs, the ovaries and tubes are found to occupy a much lower position and one farther removed from the mid-line than at the beginning.

An arrest of development of neighboring parts, or the persistence of early forms, or the presence of unnatural adhesions of the ovary or tube, may lead to an arrest of the movements of these bodies at any point of their course, and thus bring about the condition of non-descent.

That the ovaries may be arrested in their descent at any point is a statement made by almost all authors treating of these organs; but it seems to be, like many another statement, simply copied and handed down from one author to another without anyone producing evidence in the shape of a detailed case to support it.

The literature on this subject may practically be said to begin with the excellent monograph by Puech on *Anomalies of the Ovaries*, published at Paris in 1872. Unfortunately, the original of this valuable paper was inaccessible to me, but from abstracts of the article found in the *Rev. des sciences med.*, 1873, *Virchow's Jahresbericht*, 1873, and the *Dict. des sciences med.*, we learn that

it contained the complete literature of the subject up to that date (1872), with a detailed report of all recorded cases.

These—some thirty-eight in number—are mostly anomalies of number, size, etc. Two cases, however, by the author himself, are anomalies of location, the ovaries being arrested in the lower lumbar region similar to the case here reported, and to which Puech gave the name *ectopie lombaire*.

While this article may be said to begin the literature of the subject, it may likewise be said to practically end it, as little that is new or original has appeared since it. In quite an extensive review of the literature since 1872 I have been unable to find the report of a case similar to this.

Bland Sutton (*Brit. Gynecol. Jour.*, 1887-'88, vol. iii, p. 372) reports a case of non-descent of the ovary in an infant with *spina bifida* which survived its birth but a few days.

The abdominal cavity presented evidences of extensive peritonitis, loops of small intestine were glued together, and the descending colon lay high up under the liver, firmly adherent to the ventral aspect of the right kidney.

The right ovary and tube were firmly fixed by stout adhesions just below the crest of the ilium.

Sutton suggested that perhaps the arrest of descent of the colon may have been instrumental in arresting the descent of the ovary.

This is the only case which I was able to find detailed, which will indicate, somewhat, perhaps, the rarity of the condition.

The second point of interest, the occurrence of a chronic purulent inflammation of the Fallopian tube, giving rise periodically to symptoms of acute peritonitis which disappear coincidentally with a discharge of pus from the genital tract, is likewise rare while the combination of an undescended ovary and tube with *sactosalpinx purulenta profluens* I have not been able to find heretofore recorded.

A PRACTICAL STUDY OF THE BLOOD AND THE CIRCULATION,
WITH A HISTORICAL REVIEW OF THE SUBJECT AND ITS
BRIEF CONSIDERATION FROM THE STANDPOINT OF ITS
CHEMICAL COMPOSITION, ANATOMICAL STRUCTURE, AND
PHYSIOLOGY; INCLUDING CLINICAL STUDIES, AND EXPERI-
MENTAL RESEARCH ON THE LOWER ANIMAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Continued from last number.

PART XIX.

LEUCOCYTES IN NUTRITIVE
PROCESSES.

From what may be gathered through latest researches of investigators it is evident that though a wide diversity of opinion obtains on the question of the origin and ultimate disappearance of the colorless blood corpuscle, all are in accord in conceding to it an important place in nutritive processes, while some go so far as to give it a place of leading importance, in the genesis of inflammation. There is no doubt, however, but in some instances properties are assigned to it which it does not probably possess, or have prematurely and without repeated test observations submitted conclusions bearing on its metabolic properties which have not been substantiated.

Its identity with the pus-cell has been denied, though there are some who believe it to be a derivative, if not in fact, a lymph corpuscle, farther advanced in the process of evolution.*

Living lymph corpuscles we are rarely able to secure in the human body, but in order to decide this question a comparison of the two corpuscles, the lymph and colorless blood corpuscle, is desirable. During the past year an opportunity was permitted me to examine pure, watery lymph, direct from a serous cavity; when advantage was taken of

the chance to critically study its protoplasmic elements.

A man, 34 years old, came to me suffering from a bronchial cleft, which had its opening two inches above, and to the outer side of the left nipple, in the third intercostal space. These fistulas, which commonly connect with the mucous walls of the pharynx and other parts of alimentary canal are seldom traceable through an endothelial wall. But in this case it was quite unmistakable. The papillary aperture would periodically open and freely discharge an amber colored fluid for a few days; saturating freely several absorbent dressings applied, when it would close again. There seemed to be a hypersecretion within the pleura, or a flattened accessory pouch lying anteriorly to it, and inasmuch as as the flow had discontinued several days, physical symptoms of effusion were present; besides, there was an uncomfortable sensation of oppression over that side of the chest. When the discharge again commenced there was immediate relief. That the effusion was not of an inflammatory origin was proved by his own clinical history, as well as by the morphological characters of the escaping fluid. He had been cognizant of the discharge for nearly two years, though it did not seem to affect his general health.

In order to collect it as free as possible from impurities the surface of the integument was cleansed, saturated with proof spirit and dried; then with a narrow tipped pipette, applied in the aperture, with pressure applied to the thorax

* T. A. Simmons, M. D., St. Louis, Mo.,
Leucocytes and Nuclei Hygienic Gazette, August, 1895.

from before backward, a few drops were pressed out and collected.

The microscopical adjustments were all so arranged that within half a minute from the time the lymph was collected it was under focus; care being observed to have everything warm and so support the cover-glass as not to unduly compress or injure the corpuscles. The atmosphere of the room was about 85 degrees and everything conducive to the preservation of the vitality of so-called "cell life." The first feature that struck me was the comparative scarcity of the lymph corpuscles. With a field in a one-fifth lens, which would contain many hundred blood corpuscles, only from six to twelve would appear. In one field, on one occasion, but three were found, though in another on the same day fifteen were counted. The next feature was their great size, easily three times as large as a leucocyte, and rather ovoid than circular in outline. They all had but a single nucleus with a very high refractive power and a clear cut border, which sharply separated it from the inclosed protoplasm. Their interior was exceedingly delicate, totally devoid of any granular elements or a reticulum. No movement in them was discernible. Their borders preserved their regular contour and no change could be perceived, until after a time, as the medium in which they floated began to evaporate, when a uniform shrinkage was observed before they finally broke up and became invisible. The lymph corpuscle, which must not be confounded with the "lymphoidal," found in the stroma or adenoid tissue, therefore, possesses characters unique, definite and characteristic. To confound it with the leucocyte is certainly an error, as it bears no resemblance either in form or in function.

The greater part of the leucocytes have but one nucleus. In my observations, in the living animal, the single, or Mon-nucleated, have equally active ameboid motion with those in which several indistinct specks are seen in the protoplasm that has led some investigators to have regarded them as polynucleated.

It has not been my purpose in these notes to enter on any recent controversial side of this subject of the functions of the corpuscular elements of the blood, as this would lead one off into an almost endless consideration of the details, but before concluding this feature of the subject there is one more feature of it, which has been lately pressed forward by those who would open for us the portals of a new pharmacy, and who make the extraordinary claim that all the nutrient elements of digestion are first taken up by the leucocyte; that this minute body is not only voracious and omnivorous, but that all the elements of the food, must, as it were, be first predigested by it.

As it were to impose further on our credulity, it is declared that the nuclei of the leucocyte possess germ-destroying energy and in a very high degree is a vitalizing energetic tonic. It does not appear, however, that any means is yet known to science by which only the nuclei can be extracted from the leucocytes or by what means the leucocytes themselves can be separated from the mass of other corpuscles in which they blend. We have seen that they are exceedingly prone to immediate disorganization on removal from the vessel. But it is said that the pulp of the spleen, the thyroid and suprarenal bodies are utilized for the extraction of the "nucleins."

Michafavat, Bizzorzero, Erlrich, Hayem and a host of other distinguished hematologists candidly acknowledge that the source of the leucocyte is doubtful. My own studies on the fresh and stained section of the liver, spleen, thyroid and suprarenal bodies have never convinced me that any of them were directly concerned in the genesis of the colorless blood corpuscles. Nor is there a scintilla of proof that the proteids and hydro-carbons are primarily seized on and absorbed by the leucocyte in the process of digestion.

Physiologists are generally agreed that the lacteal and portal capillaries are the vessels exclusively concerned in the absorption of the intestinal contents, but the venous blood, as

we have seen, is not rich in leucocytes.

Besides, before the liquid ailment can penetrate the capillary walls of the absorbents on the surface of the stomach or the villousities of the small intestine several layers of stratified epithelia must be traversed, which must in some decisive manner influence metabolic changes in those elements now about to be appropriated by the economy.

We have seen that the capillaries advance to but not through the tufts of tubular epithelia which line the wall of the bowel. They are incessantly giving off and taking back the necessary ferment and other substances demanded in the chemistry of digestion.

The facts probably are—for a large element of theory must enter into the consideration of the subject—that all the liquid elements of the aliment pass changed and unchanged directly in the plasma of the blood, through which it is dealt with first not by the leucocytes but the glandular organs before it is assimilated, consumed and eliminated.

The assumption that the protoplasmic elements of the spleen, and the thyroid body, are the centres from which the nuclei of the leucocytes spring is not supported. The Malpighian corpuscles or tufts of the spleen and its stroma are thickly packed with what are designated lymphoid cells, bodies varying in diameters, shape and arrangement, closely allied with those of embryonic origin. The lymphoid tissue is also found in great abundance in the substrata of all epithelial and endothelial structures. We have no proof that these non-differentiated elements are any more concerned in the development of one variety of corpuscles than the other.

The thyroid is said by those who have made an extensive study of

embryology to be primarily an epithelial structure; later, towards birth, undergoing changes into lymphoid elements, and, finally, as adult years are reached, undergoing central, myxomatous changes. From the profound constitutional changes which so commonly follow its excision, it has been quite generally believed that this organ is actively concerned in hematopoiesis. There is no evidence or demonstration forthcoming, however, to prove that from its cellular or nuclear elements the primitive granule of the colorless blood corpuscle is derived.

The leucocytes in pathological conditions, as general anemia, from constitutional disturbances and local lesions of a malignant character play an important role, and now, with the hematometer and facilities for staining no doubt may be studied with great advantage as a means of establishing diagnoses and forecasting results. Hematology in the near future will be the field to which clinicians must direct their observations for fresh and more definite light on many deranged phenomena of health. With the advance of our knowledge in this direction the more antiquated and uncertain methods of studying nature must be cast aside, for even now the revelations of modern hematology indicate that not only may disease be readily recognized but its advent anticipated. Laveran has demonstrated this in malaria, and there is every reason to believe that the time is not far distant when the same will be accomplished in all those diseases which have their origin in the blood elements.

Concluded.

(The continuation of Dr. Manley's articles on "The Blood" will appear in the next issue under the title of "Vascular Mobility and Stasis; Arrest and Restoration of the Sanguineous Wave, Physiological and Pathological."—Ed.)

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number)

CHAPTER IV.

INDICATIONS.

How diagnose onanism?

I acknowledge it is often far from easy. There is no absolute sign or pathognomonic symptom of this vice; nevertheless there are a number of points which, taken singly, have no signification, but which in their ensemble indicate clearly the existence of the solitary habit.

These signs I class under three heads. (A) General physical signs. (B) Intellectual and moral signs. (C) Local physical signs.

(A). A complexion pale, wan, dull and leaden; the eyes sad and troubled, pupils dilated and turned; the lids red, swollen, heavy, especially the upper ones; stuck together in the morning; bordered below with a brownish-blue semi-circle; a fixed and stupid gaze, directly downwards; rapid emaciation with no apparent cause; inco-ordination of movements; a more or less pronounced muscular feebleness, especially in the lumbar region; trembling of the limbs; night-sweats; the way of seating themselves; the position of the hands in bed and awake; an incomplete and disproportionate development; extreme nervous susceptibility; headaches, gastralgia, syncopes, etc.; sleep troubled by voluptuous dreams or terrible nightmares—these are the general physical signs.

(B) A kind of inexplicable, instinctive sadness, carried to taciturnity; a timorous character, unequal and morose, inclined to fits of anger; exaggerated bashfulness in the presence of parents and sullenness before strangers; unfitness for work; a treacherous memory; an obtuse temper; indifference to play and games requiring thought; exaggerated love of solitude; great laziness; a habit of prevarication; exaggerated friend-

ship for some playmate—these are the intellectual and moral signs.

(C) The premature development of the external genitals; the rupture of the hymen, occasionally; abnormal moisture of vagina and vulva; gaping, dilation and abnormal color of these organs; leucorrhea; elongation and morbid sensitiveness of the clitoris where excoriations are often found; finally foreign bodies of all kinds and shapes usually found in the bed, hidden under the mattresses, constitute the semiology of this group.

"How often," writes Reveille-Parise, "have we attributed diseases caused by onanism to causes suggested by the patient, who is interested in deceiving us!"

"How many times have I abstained from asking questions on subjects that no parent likes to hear, and which some would consider an outrage!"

The physician should not allow himself to be influenced by categorical denials even; his duty commands him to insist, when he feels sure that he is on the right track. Only too often he is unintentionally misled.

Mothers can, with the greatest difficulty only, be made to see the faults, much less the vices, of their offspring.

"Usually, too confiding and too credulous," say Lachaise, "parents either trust in the probable effects of the moral and religious education their children have received, or are but too willing to imagine that the innocence of their daughters shields them from all corruption and, consequently, recognize the evil only when it has made immense progress."

A few years since Dr. Baraduc discovered a new sign of manualization that is almost positive. Unfortunately, this sign exists only in those who have been wounded, amputated or burned; in short, those who have

a solution of continuity of the integuments.

According to Dr. Baraduc, in those wounded who masturbate, a little pimple, a white point of little prominence, forms on the new cicatricial tissue. It is a little vesicle containing a viscous material, and raises up the newly-formed epithelium. After 24 to 36 hours, this membrane ruptures and leaves an irregular ulceration, the bottom of which is grayish or yellowish, its sides clean cut and usually covered with the material that is at the bottom of the ulcer.

These ulcerations may be either single or multiple, and usually disappear in 48 hours, the wound cicatrizes and remains so for a few days; then, suddenly, a new ulcer makes its appearance. This intermittence indicates the suspension and resumption of the onanistic maneuvers by the patient.

Dr. Baraduc brings eight cases to support of his proposition. We shall reproduce the first and last of these, asking the reader to pardon their length because of their great interest and the value of their details.

"A young girl, 12 years of age, constitution sound, fresh, in good health, and not lymphatic, is thrown down by a carriage and has her leg broken at the juncture of the lower and middle thirds. There is a wound 5 by 2 cm.; anteriorly the bone is bare and several splinters are detached. Scultet's apparatus is used to maintain the fracture; every day the wound is dressed; the coincident swelling and inflammation are treated with cold compresses. Three weeks after the accident, inflammation having disappeared, three little splinters are removed. The fracture unites normally and the wound cicatrizes.

"After the seventh week the wound is replaced by a scar 4 cm. long by 2 cm. broad; its color is dark violet.

"I intended to give her crutches two days later, but was diverted from my purpose by an ulceration 2 mm. in diameter, situated upon the edge of the scar.

"The bottom of this ulceration was covered with a very thin layer of an

adherent, slightly sticky material, the color of which was pearl gray, slightly tinged with yellow.

"The edges are 1-2 mm. high and formed by the cicatricial pellicule only; they are clean-cut, like Hunterian chancres, without relief and without particular discoloration of the surrounding scar. Two or three mm. from the ulcer were two tiny granulations, barely projecting from the newly-formed epithelium; one of these, the smaller, was grayish-white, and the other grayish-yellow; the next morning the pellicle was ruptured, two ulcerations exist—purgatives, dressing with aromatic wine, quiet. I tell my little patient that she must not expect to get up before the three ulcers are cured.

"Four days later the first ulcer has healed; the others followed suit two days later, leaving scarcely a trace of their existence.

"Crutches were now given the little girl, who took a few steps around the ward, happy at the thought of soon leaving the hospital. Nevertheless, her strength did not return; her face was pale and slightly bloated. Two days after she had commenced walking I examined the leg, which was swollen about the ankle; then glancing at the scar I saw a fresh ulceration of the same character as the precedent, situated in the very centre of the cicatrix. Being ignorant of its etiology, I attributed it to the exercise of the preceding days, and prescribed quiet and renewed dressing with aromatic wine.

"The next day a group of four or five little vesicles form, close to and within the first ulceration. The granulations resemble closely millet seeds placed under the transparent epithelium. Twenty-four hours later they form as many irregular ulcerations, united to the primary one, and presenting in miniature the appearance of a phagadenic ulcer.

The skin is dry, the pulse irregular and nervous, the face is pale, the eyelids slightly swollen, the pupils strongly dilated, even in the light. For the first time the idea struck me that my patient gave herself up to certain habits that could well be

the cause of the frequent and irregular appearance of all these ulcerations. I talked and reasoned with her, then, after having frightened her a trifle because of the reappearance of the little sores, I said, fixing my eyes upon hers: 'My dear child, I am no longer ignorant of the cause of all these ulcerations, and you can never get well, for you have a bad habit that will prevent it; you carry your hands * * * where you should not. You have done so inside of twenty-four hours. I see it from your scar. * * * You have been doing this a long time, have you not?' 'Oh, no, sir! Only three times,' said the poor girl, blushing deeply.'

"After this avowal, I reassured her and calmed her fears, saying: 'Now, see here, my dear child, do you wish to get well and leave the hospital or to remain in bed all your life and perish miserably? * * * It is all dependent upon yourself.' A few tears flowed, and these were followed by a full confession.

"I insisted upon a promise not to recommence, and so great was her desire to get well and leave the hospital, that she said, with the greatest ingenuousness: 'I really do not know if I shall have the strength of mind necessary to keep my promise; have my hands fastened, it is safer.

"With her consent, I put on a straightjacket, and arranged the hands so that she could carry them to her head and chest, but not below the waist.

"Twelve days long the hands were fastened this way, the scar of the wound consolidated, the ulcerations cured and the little patient seemed firm in her resolve. Eight days more pass the same way, and then—fresh ulcerations!

"One at each angle of the scar. Evidently the child had had herself freed for some legitimate purpose, and then profited by the opportunity!—nothing of the sort; the child denies it; her hands have not been free one single instant; she has not been able to use them for the

forbidden purpose. * * * She cries and acknowledges nothing. The patients around her confirm what she says. Nevertheless, the proof is there, doubly confirmed by the ulcerations. To what attribute their existence? To a particular state of the blood? To some diathesis? I could not admit this, for on entering the hospital the child had every appearance of perfect health and a sound constitution.

"Being especially anxious to have this point settled, I asked the nurse to take especial notice. A few days later at 8 o'clock P. M. the nurse came to me and communicated her suspicions.

"We went to the patient and found her asleep, so, without awaking her, we suddenly removed the bed clothes. She was lying on her back, with her arms fastened, but with her right leg firmly flexed upon the hip, and the toes of her right foot braced on her left thigh, thus bringing the right heel above the pubic region.

"The child was not yet nubile; no sign of puberty was visible on the pubes; but the whole pubic and subpubic region was dotted with little drops of blood, and looked like a blister, with its pseudo-membranous covering freshly torn off.

"What an amount of friction must have been used to bring about such a condition of things! What an aberration of sensation was necessary in order to pursue pleasure through so much pain! Is this not a fact that shows pleasure and pain to be two sensations whose extremes blend?

"We respected the sleep of the poor child, and it was the next day, and with the nurse as the only witness, that I showed the little patient the necessity of submitting to a treatment that would absolutely prevent her from giving up to the fatal habits. After a hearty assent the legs were extended and fastened, after being widely separated.

"Eight days sufficed to cicatrize an ulcer 15 mm. in diameter, formed by the union of several simple ulcerations. The little girl, more than ever desirous of overcoming her dead-

ly habits, remained a fortnight longer fastened to her bed. During this period all traces of ulceration disappeared; her health became excellent, and the convalescent quitted the hospital full of good resolutions for the future.

"Case, the Last—A handsome young girl, 12 or 13 years of age; brunette, black-eyed, of sound constitution, but excessively slender, was brought to my office on account of a phlyctenoid burn on the back of her left hand.

"This burn, which had been caused by boiling water, was six days old. The epidermis had disappeared, but the wound showed some signs of cicatrization at its circumference. It was dressed, with sweet almond oil and lime water. Four days later the scar covered two-thirds of the wound.

"A cicatricial island also occupied the centre of it. In the middle of this appeared a granulation, of yellowish-gray color, one mm. in diameter, and resembled a millet seed placed under a transparent epithelium. Several other granulations appeared on the borders of the wound, and soon produced by their degeneration the characteristic ulcerations.

"According to her mother, the young girl had been unwell for some time, and had been unsuccessfully treated for various affections of the lungs and viscera; since six months especially, she said, her daughter had grown thin with alarming rapidity. In fact, her cheeks were hollow, her cheek-bones prominent, her zygomatic arches strongly in relief below the temporal fossae. The child had grown sad, her eyelids were swollen, her pupils largely dilated; a slight dry cough, accompanied by frequent palpitations, had existed for some time; she was excessively irritable and dyspeptic; her pulse was feeble, frequent and irregular; diarrhoea had existed for a few days. It was the beginning of the end!

"The mother was in despair; she adored her daughter. The daughter wept upon seeing the tears of her mother. Profoundly touched by this situation. I ausculted and examined

most carefully all the splanchnic organs, and finding nothing that explained these accidents, I was convinced that I had before me a terrible example of the deadliest effects of nymphomania. The existence of the ulcerations did not allow me even a doubt.

"The mother could neither believe nor share the ideas I communicated to her; she revolted against the suspicion that at first only hovered over her daughter; then she energetically denied the possibility of the fact that I affirmed. The thing was not even probable; she did not leave her child either by day or night, she accompanied her into the most private places; it was, therefore, materially impossible.

"I asked the good woman to leave me alone with her daughter, and then explained the situation to the little girl, insisting, among other things, upon her mother's grief at having her so ill.

"The poor child clung feverishly to life; 'I do not wish to die,' she said. 'Still, I know perfectly, that I have not long to live!'

"I next spoke to her of her ailments, and told her that I was acquainted with their cause, and that, if she wished to have me help her out of her plight, there was no time to lose; that it was still possible, but she must have absolute confidence in me, and not even conceal those secrets that she kept hidden from her mother.

"After numerous hesitations, mingled with many tears, I learned that, in spite of the incessant surveillance of her mother, who did not leave her for an instant, and even slept with her, she succeeded in eluding her vigilance. Here are the facts as she gave them to me: 'I go to bed first and pretend to go to sleep very soon; I even snore a little to reassure my mother and make her think I am sleeping; but I am not. I listen, and as soon as I am sure that my dear mother is sound asleep, I yield to my deadly habits. In the morning mother finds me asleep, the forehead covered with perspiration, or very much fatigued when awakened. I

am very sorry to see her so grieved, but that does not keep me from recommencing, although always promising myself that it shall be the last time.'

"I was authorized to make a confidant of her mother, who could not have been more dumbfounded by the lightning striking at her feet than she was at this.

"From now on the child wore a jacket with a single sleeve and no opening.

"The love of life gave her courage to resist her inveterate desires; her mother's surveillance became inevitable and more efficacious; the bad symptoms disappeared. Baths, massage, moderate exercise, roast meats and old Bordeaux became powerful auxiliaries.

"Health came back, the burn cicatrized promptly, the ulcerations disappeared, never to return. Strength returned with her flesh, and this child, instead of dying, regained in a few months, thanks to the energy with which she resisted her passions, her magnificent health and ravishing beauty.

"Her burn saved her life!" (1)

CHAPTER V.

CONSEQUENCES.

Georget (2) believes that the authors who have written on onanism, and Tissot especially, have vastly exaggerated its dangers.

F. Roubaud (3) says in the same sense: "Every author who has taken masturbation for his subject has painted the ills resulting from it in the blackest of colors.

"Tissot's work is a classic in this respect.

"If it were not out of my line, it would be an easy matter to prove how exaggerated, useless, and even dangerous, these deductions are. The strict truth is hideous enough, without its being necessary to adduce purely imaginary troubles."

I myself am far from being of the opinion of these authors, but without

wasting time in refuting unsupported statements, I will place the opinions of Reveille-Parise and Lallemand in opposition to theirs.

"In my opinion," writes Reveille-Parise (4), "neither the pest nor war are more disastrous to humanity than the deadly habit of masturbation. It is the destroying element of civilized society. I am acquainted with no worse scourge nor more contagious epidemic than this social corruption, for the number of people addicted to it from their earliest youth is simply immense."

Lallemand says: "Those who have accused Tissot of exaggerating the truth, of having missed his point, and even of having done more harm than good, have either been very unjust or else spoken without a knowledge of their subject. I have several times seen inordinate masturbation followed by death, and the numerous confessions I have heard from reformed onanists have convinced me that no book of its kind has been more useful to the young."

This point settled, a question now presents itself that must not be passed by in silence: Are the results of onanism the same as those of natural venereal excesses, or more serious? I do not hesitate to affirm the latter, and should I be asked my reasons, I will quote this reply of Londe's, which is correct in every particular:

"It is because onanists have better chances to provoke the venereal spasm than persons given to excessive coitus, since they need only to be alone for a moment.

"In addition to this, the encephalon is in a prodigious state of tension, and an exciting cause being wanting, is forced to create one in order to experience the venereal sensation."

A second question is this: Does a woman feel in the same degree as a man the pernicious effects of coitus and of masturbation?

In spite of the great scientific knowledge of the author I have just quoted, and who answers in the negative, I must differ from him.

It is a matter of common knowl-

(1). De l'ulcération des cicatrices récentes symptomatique de la nymphomanie ou de l'onanisme.

(2). Physiologie du système nerveux.

(3). Loc. cit. p. 556, vol. II

(4). Revue médicale.

edge that prostitutes do not suffer from excessive coitus because, by an act of their volition, they can rid themselves of participation, both corporeal and moral, in the sexual congress. In onanism it is different; this has, whatever be the methods employed, but one aim, that of venereal pleasure; therefore, we must admit that in both sexes masturbation

will cause morbid processes, and these will be more marked in the female because of the predominance of nerve force in her composition.

If we admit this, I shall proceed to speak of the results of genital masturbation.

These are: (A), Local; (B), General.

(To be continued.)





Editorial

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ON ANCHYLOSED JOINTS.

Before the late meeting of the orthopedic section of the New York Academy of Medicine Dr. Wisner R. Townsend presented a brief essay on "Brisement Force as a Means of Treating Fibrous Ankylosis of Joints."

While he entered but superficially on the great diversity of pathologic conditions, local and general, which led to articular stiffness, and considered only rheumatoid arthritis, yet what he said on therapy was of importance to be remembered, coming from one of his large experience as an orthopedic surgeon.

He cited eleven cases of firm ankylosis in the various major articulations, resulting from intra and extra-articular inflammation, which he had treated by immediate and violent force, under ether, in liberating the adhesions.

In nine so treated and then massaged, etc., complete relapse followed, and in a short time all the joints were as firmly locked as ever. In two of the eleven some slight improvement followed, but in none full restoration of function. In the discussion which ensued one member

stated that gonorrheal arthritis generally left the joint involved permanently ankylosed. But this is certainly a mistake, for of the many arthritic lesions of this character which have come under our observation restoration of joint power has been the rule.

What was most gratifying and commendable were Dr. Townsend's honesty and candor, a general imitation of which is just now sadly needed in the profession. A member of the section said that within a week he had heard a professor of surgery in one of our colleges declare before a class of students, many of whom will graduate in a month, in exhibiting a case of multiple joint ankylosis—three of the major articulations being solidly fixed by an old rheumatoid arthritis—that it was a simple matter to cure all these cases by brisement force. He would liberate all these joints under ether and there would be no further trouble. This advice the speaker regarded as vicious, unwarranted and dangerous, which would leave a delusive impression on the students, inasmuch as anything like a cure is quite

out of the question in all but very rare cases of this description.

The greater number of cases of ankylosis are not in consequence of infections or constitutional maladies, as gonorrhea, tuberculosis or rheumatism, but are the results of local injuries, as fractures, dislocations and various degrees of sprains. These, with few exceptions, may be remedied by appropriate treatment; and to this phase of the subject we would especially direct attention.

In this class of cases, whether liable to be followed by pseudo or generic ankylosis, the fundamental element of success is prevention.

There can be little doubt but many a case of non-articular rheumatism or of simple joint-sprain is doomed to a hopelessly crippled state for life through a mistaken diagnosis or misdirected treatment.

This is particularly the case with the hip and knee joints in children. In many children the joints are singularly susceptible to inflammation after trivial injuries. Such a condition, succeeding hip-trauma, when severe, is only too often set down as "hip disease." Forthwith the entire limb is encased in fixative apparatus, all muscular action is suppressed, the circulation embarrassed and the arrest of growth in the imprisoned member begins.

Rheumatism often pursues an erratic course in children, as is evident from the common cardiac complications, the usual sequellae, and the occasional advent of it in one articulation only. Too many of such cases are treated as incipient, osseous or arthritic tuberculosis, the joint locked under plastic dressings or mechanical apparatuses, the inflammatory deposits are held in place and their resorption is made impossible, when a solid welding together of all the extra articular structures, as tendons, ligaments and muscles, occurs.

In this class let the medical attendant always guard against the premature employment of any description of fixative appliance until the "therapeutic test" has been faithfully and patiently tried. No harm can possibly result from mod-

erate delay, but irreparable harm may ensue through the adoption of any local adjustment which imperils the nutrition of the limb.

In fractures at times the quality of the lesion itself may establish the groundwork of certain grades of ankylosis that cannot, by any means known to art, be entirely obviated; as those at the elbow, at the wrist in typical Colles or at the ankle in bad cases of potts.

Lucas Championniere has lately, in a treatise on fractures, gone so far as to recommend passive motion in nearly all types of simple fractures as early as the third day, directing the patient with a fracture of the lower extremity to move about on crutches at the earliest possible date. His views on early manipulation are too extreme, but the principle which he champions is, no doubt, the proper one, for his object is to prevent ankylosis and favor reparative processes. Truly too many joints are ankylosed by too long immobilization in fracture treatment.

In bad sprains, as soon as active inflammation has subsided, passive joint motion should be commenced. But in order to abort the violence of such inflammation in all severe sprains, local antiphlogistics should be employed. Free leeching or cold applications favor the prevention and dissipation of extreme engorgement, and hence less probability of subsequent intense reaction.

Rude, violent force will seldom accomplish much in many cases of old ankylosis; but in recent ones, especially those in which we have reason to believe the adhesions are along the muscle planes, between their sheaths or the thecal envelopes of the tendons, as after various fractures, properly directed force will at once liberate everything and as a rule leave the joint free.

But, as observed in the beginning, the cardinal aim of the practitioner should be prevention. This is practicable in those cases of local origin. In those succeeding constitutional conditions, like brisement force, it will practically accomplish nothing.

A STEP IN THE RIGHT DIRECTION.

We are informed that The Ladies' Home Journal, of Philadelphia, has decided to refuse to publish any advertisements which pertain to medical, remedial or curative agents on the ground that they are unwilling to assume the responsibilities, slight though it may be, of the claims of proprietary advertisers. Were the daily press and monthly literary magazines to follow in the line of

this good work, what a purifying of the atmosphere there would be! The patent medicine man would be obliged to seek a sale of his goods through such channels that would stamp him as a fakir at once, and good legitimate products would have recognition through the legitimate medical press, and there would be added subscribers to the literary journals.

NATURAL IMMUNITY.

The nature of the human organism, when in good condition, is to resist the invasion of disease. In other words, the healthy blood will offer no field for the development of maladies. Ill-health begins with a process of disordered nutrition involving a stasis of correlative circulation, due to an insufficient supply of some one or more of the elements of the blood. Especially is this fact a source of danger in the presence of germ diseases. For instance, we will observe in phthisically inclined persons a loss of oxidizing elements, particularly a wasting of the phosphates, before the advent of any bacillus. We must recognize the ever-present germ, so called, in all the environments of the human being. They are in the air we breathe, the water we drink, and even in the blood which vitalizes our bodies. When the channels of exit for excrementitious

substances are unimpeded, these bacteria pass out of the system without causing harm. The current of the circulation being rapid in its metamorphoses, the oxygenation of the tissues being perfect, many kinds of bacteria may be present without finding lodgment or suitable soil for their propagation. This is the essential of natural immunity in the system.

From the study of natural chemistry we know that all change of material within the organism depends on the energy of intercellular oxidation, and in this way we are protected from deleterious substances. The obvious method of inducing artificial immunity, then, is first, by relieving obstructed correlative circulation, and, second, by augmenting natural immunity by supplying substances which improve oxidation of the tissues, thus vitalizing the blood-cells.

PROFESSOR ROENTGEN'S DISCOVERY.

No aid to diagnosis has ever been discovered which will prove so valuable to humanity and medical progress as that recently brought out by Professor Roentgen, if his new method of photography gives the success it now promises.

Photography of the bones through the overlying muscles and fleshy layers of the body is a subject, the ex-

cution of which has been little dreamed.

The experiment has been recently repeated with success by Professor Trowbridge, of Harvard College, who terms the phenomenon a "Shadow-graph," the bones of his own hand being reproduced in outline on the plate through the means of cathode rays.

Professor Neusser, of the Virginia University is said to have been able to thus photograph a renal calculus in the pelvis of a kidney by Roentgen's system.

The process of applying this experiment is said to have been somewhat as follows:

A very sensitive Cramer dry plate about four inches long and one and one-half inches wide was put, film side up, into a wooden box, having a close-fitting sliding wooden cover. Upon the sensitive plate were laid two clear glass slips, less than one-sixteenth of an inch thick. A space was left between them about four inches long and one-half an inch deep. Across the glass slips to hold them in place was put a narrow bar of pine wood five-sixteenths of an inch thick. The wooden cover, three-sixteenth of an inch thick, was then pushed into place.

The wooden box thus prepared was placed within a covered pasteboard box, the walls of which were about one-thirty-second of an inch thick. The pasteboard box, with its contents, was placed one or two inches from the brightly florescent part of an ordinary spherical Crooke's tube, and the action was maintained with this arrangement about two minutes, when the tube became so hot that the operation was stopped. The sensitive plate was then taken out and developed with rodinol. Soon the part which

had not been shielded by the glass slips began to show dark, and in a very short time the development was completed, the boundaries of the exposed part of the plate being well defined for the whole length of the plate. The image was then "fixed" in the ordinary way.

The ordinary 60-volt alternating current used for lighting the building was sent through the primary of an ordinary coil. The resistance of the primary of this coil is one-tenth of an ohm, and of the secondary 6000 ohms. The current through the primary was not stronger than 15 amperes. The current from the secondary of the first coil was sent through the primary of twenty-five turns of a Tesla induction coil, the secondary of which has 500 turns. The secondary will give a spark through about six inches of air. Its terminals were connected with the electrofloe of the Crooke's tube already mentioned.

Whatever the cause is that produced the effect, it certainly worked through a thickness of wood which at one place was not less than one-half an inch. At other places the thickness of the wooden shield was only about 1-8 of an inch, but it is very difficult to distinguish on the plate the part that was covered by the extra thickness. It is evident that an effect would have been produced through more than one inch of solid wood.





A PRACTICAL METHOD OF MEASURING AND REGISTERING THE TRUE THERAPEUTIC DOSE OF INDUCTION-COIL CURRENTS.*

By S. H. Monell, M. D., 865 Union St., Brooklyn, N. Y.

A former paper by the present author described a new induction-coil apparatus with a number of original improvements designed by me to increase precision and efficiency. In this second paper I now present to the medical profession my method of dose measurement and registration, which, so far as inquiry discloses, is the first practical method with a scientific basis.

I am met at the outset of my proposition to measure and record induced medical currents by the curt remark that it cannot be done. With this declaration before us, let us review a group of contemporary statements upon the subject of faradic dosage. The authority for each will be easily recognized by all familiar with the literature of electro-therapeutics.

1. "A bar to the progress of faradism is the impossibility of satisfactory therapeutic measurement. Edelmann's faradimeter is incomplete and, I must ever add, misleading as a physiological or therapeutic measure."

2. "The Edelmann faradimeter, which is not by any means, as was intended, a measure of faradic electricity, is too complicated and expensive for the practitioner, * * * and is merely a deceptive snare for

physiological or therapeutic purposes. The strength of the current would be far better approximated by indicating the nature of the coil and the resistance offered than by the volt scale of this faradimeter."

3. "Unfortunately we have no means of measuring accurately the dose of faradism, the only means at our command being the millimeter scale placed at the side of the coils. This is a very rude method, indeed, but it is all we have at present."

4. "It is much to be regretted that we have no means of accurately measuring the therapeutic dosage of the faradic current."

5. "The old attempt to measure the faradic dose by a coil movable over a primary core, on a graduated scale, was so unscientific and inadequate as to be ridiculous."

6. "It is the ability to record the doses of the current to which must be ascribed the rapid progress of galvanism. To give the necessary impetus to faradism we must obtain this same precision, * * * and toward this end my efforts have been directed ever since I realized how seriously this valuable remedy was affected by its vagueness and uncertainty; and as early as 1886 I sought to approximate dosage by a defining and precisising of details."

7. "The precise measurement of the faradic current for therapeutic purposes has not as yet been satisfactorily attained. The method

* Owing to the length of this paper only the first section of it is presented in this issue of the "Times and Register." It will be concluded in our next number.

heretofore in vogue, of measuring on a scale the distance the secondary coil is advanced over the primary, is inaccurate and delusive—in fact, means nothing—since the battery current varies with use; and no estimate is taken of the variable resistance encountered in the external circuit, which is altered by the location of the electrodes, by their size, and by the distance between them. The fact that this current possesses the same two qualities as the galvanic current—pressure and volume—makes it evident that we must in some manner estimate the relative voltage and amperage of the current employed in order to arrive at a practical conclusion of its comparative value.”

The striking remark of Engelmann's, which closes the second comment cited above, although not observed by the writer previous to the preparation of this article, foreshadows what is substantially accomplished by the method to be described in this paper, and which was originated by me, January 29, 1894. My method also takes into account what is suggested as necessary in comment number seven, but before proceeding with descriptive details, certain relative facts require to be understood. These are as follows: No automatic meter or measuring instrument is required to select the proper dose of faradism for a patient, or to adjust it to the needs of therapeutic use. Direct currents need such an indicator, but induced currents do not. The educated skill of the operator regulates the dose, and does it adequately. The existing need is for a standard system of recording the dose administered, and thus impart uniform value to the reports of clinical cases, and introduce precision and definiteness into the special literature of the subject.

The accepted dose measurer of the constant current is the milliamperemeter, adopted universally within half a decade, and which in general estimation has lifted the galvanic current from empiricism and placed its therapeutics on a scientific basis. Let us, therefore, note exactly what

the milliamperemeter accomplishes and what part it plays in the dose record, in order that we may better understand the problem before us in attempting to measure and record the dose of induction currents.

To enable separate observers to compare and repeat results in clinical cases treated by galvanism, we should take into account every factor which affects the action of the current. A comprehensive record must necessarily inform us then, on the following points: 1. Surface area or type of electrodes—which range from needles, sounds, tips, etc., to small or large pads, or water-baths, or may be clay, copper, zinc, carbon, platinum, steel, tin, brass; or covered with sponge, cotton, felt, etc., determining conducting power and density of the current. 2. Situation of both positive and negative electrodes during treatment. 3. Tissues treated and their pathological state, symptomatic conditions, etc. 4. Time and frequency of administration. 5. Reading of the milliamperemeter, or current volume.

Clinical reports of these particulars, with results of treatment, would be complete; and while of the various factors the meter furnishes but one, it supplies the last essential to the dosage of galvanism.

When we enter upon the problem of faradic dosage we find the factors no fewer, but differing in character. These are now: 1. Character of the current, as determined by the coil employed. 2. Description of electrodes and their situation during treatment. 3. Rate of current interruption. 4. Tissues treated, condition, etc. 5. Current strength. 6. Time and frequency of application.

The missing link in our clinical record is a means to state the current strength. We can sufficiently indicate the rest. How shall we measure the current strength? Now, certain features enter into the measurement of a constant current which are eliminated from the case of an interrupted or alternating current. The therapeutic requirements of the two are inherently dissimilar. The galvanic current is silent in its

flow and physiological activity. Without observing the deflection of the galvanometer needle, or making other test, we may be in doubt whether or not the battery is in action until the current is strong enough to be felt by the patient, and as a guide to treatment the patient's sensations are incompetent. The predominating quality of the direct current is volume—its voltage being relatively small in medical uses—and "volume" cannot be determined by the eye or ear of the operator. On the other hand, the induction apparatus, through its break-piece, which is the essential, the very life of this form of electricity, gives forth to the ear and sight unmistakable evidence of action; and its current is one of predominating force, of insignificant volume, chiefly mechanical in its physiological effects, and nearly devoid of chemical properties. It therefore requires no peculiar safeguard, like the milliamperemeter, against an excess of electrolytic or caustic action within the tissues. Moreover, owing to the feeble power of dissociation possessed by the constant current, an enormous range of uncertainty enters into every galvanic application without a meter in the circuit; for the actual current strength—i. e., dose—from the same number of cells and with the same electrodes will vary greatly with the degree of resistance of the skin, etc., so that similar conditions of E. M. F. are no guide whatever to similar doses and effects. With the galvanic current, with either 5, 10, 20 or 40 cells E. M. F., and with the electrodes in a glass of water, I can cause the meter to vary from 2 to 250 M. A., without altering the electrodes or the battery, simply by lessening the resistance of the water.

The nature of the induction current, however, is such that little of this great variability occurs in clinical applications when similar conditions of treatment are repeated. A given E. M. F. will produce a definite current strength from a given induction coil, and repeat it under the same conditions as often as desired. The influence of slightly varying skin

resistances of different parts of the surface of the body is insignificant in the case of the higher voltage and penetrating capacity of currents from induction-coil apparatus. We have, in fact, but two practical conditions of resistance to consider in faradic therapeutics, viz., the greater general resistance of the skin in external treatment, and the lesser resistance of the moist, mucous surfaces of the cavities of the body. Thus presented, we observe that the problem of faradic dose-measurement, or means of record, is much simpler than was that of the now solved problem of galvanic dose-measurement; for if we can by any means indicate the electrical or mechanical energy of our induced currents under conditions identical with their clinical administration, we are assured of obtaining the same energy for therapeutic uses and repeating it upon patient after patient with substantial accuracy. A standard indicator of current strength will accordingly serve as a subsequent dose-register for future applications from all similar apparatus.

The methods so far suggested for measuring the dose of induction-coil currents are as follows:

1. A strip of suitable material, wood, celluloid or vulcanite, is placed at the side of the coil and marked in fractions of inches, or of the decimal scale. The current increases in strength as the coil overlaps the primary, and the dosage is taken to be the extent of overlap during the seance. The capabilities of measurement are exhausted when the overlap is complete, and the record must be alike for one or four cells, or No. 36 or No. 16 wire coils. It is not surprising that this attempt to measure current strength by a foot-rule was never scientifically successful.

2. The graphic method of marking the current waves; a purely fanciful idea adapted for black-board illustration of certain currents characterized by sufficient amperage to operate the tracing-pencil, but neither practical outside of the expert's hands, nor capable of demonstration at all with the currents of higher

tension and frequency and consequently smaller amperage now performing so much of the therapeutic work of improved induction apparatus.

3. The Edelmann faradimeter.

The name faradimeter is felicitous and suggestive of a proper method, but it has never reached a more practical stage of development for ordinary use than have ships for navigating the air. It is a complicated, expensive, though highly scientific, meter for the voltage of the current in short circuit; and since therapeutic applications involve the interposition of body tissues this instrument has no relation whatever to a physiological unit.

4. Micro-coulombs were asserted to be the electrical unit by which to express faradic measurement, but when we turn to the coulombmeter for aid we are practically where the faradimeter left us.

5. Voltmeters, ammeters and wattmeters that fill successfully their proper places in measurements of large commercial currents, do not supply us with any means to meter the small currents of medical coils. If a miniature wattmeter could be made to work it would be too expensive for general use.

6. Rate of interruption.

It is assumed that if this is stated in mathematical terms a certain amount of precision will be secured. Other factors, however, affect the question of dosage too materially to place dependence solely upon knowing the frequency of the periods.

This brings us to consideration of the method proposed and successfully employed by me for upward of a year. It is a method which, in my hands, has passed beyond the nascent stage of hopeful theory into the practical demonstration of constant and satisfactory use. The method was first made possible when I introduced my non-inductive fluid current controllers into the secondary circuit. They easily supersede in value all previous methods of regulating current strength.

The switch board of my induction apparatus presents a rapid interrupt-

er (vibrations of 10,000 to 30,000 per minute); a slow vibrator capable of adjustment from about two thousand periods per minute down to less than one period per second; a cell selector throwing into circuit from one to six cells at will; an eight-button compound coil selector; a pole reverser and a metallic rheostat governing the primary current. This consists of a perpendicular column seven inches in height, wound with German-silver wire of definite resistance, making twenty turns to each inch of column. Attached to it is a registration scale to denote every wind of wire from zero to 140, and permit a record of position in every degree of use. This scale is also an advance in accuracy of record, first suggested by me. But the peculiar novelty introduced in this apparatus is the author's secondary circuit rheostat, which consists of the glass tubes seen at the left of the switchboard and marked respectively 1 and 2. They contain prepared fluids of great resistance (much greater than water), and are the first competent controllers successfully applied to the secondary current of a medical induction battery. The capacity of the first (one megohm) is sufficient to control the full coil, high-tension current, and reduce the perception of it to zero in the most delicate external applications to a patient.

The second tube possesses a much lower resistance, for currents of less penetrative force. Each tube is scaled in ohms of their actual resistance, measured and calibrated for me by Professor F. B. Crocker, of Columbia College, New York. The rationale of my method is now extremely simple. The fluids in one or both tubes, and at certain heights of the movable contact rod, varying with the primary E. M. F. and current density, entirely nullify the patient's perception of the activity of the induced currents, i. e., control them, and reduce their physiological and therapeutic manifestation to zero, and afterward regulate them to any strength we desire. What resistance to the energy of any given current does it require to do this? The

answer to this question is the solution of faradic dosage.

The scale referring to tube No. 1 shows the total resistance of its four and a half inches of fluid column to be one megohm. As the movable electrode descends in the tube the resistance lessens until it is only 900, 800, 600, 400, 200 thousand ohms, and so on down to the minimum, when the electrodes of the rheostat are nearest contact. The great resistance of this tube is designed to regulate the higher tension currents of the compound coil, which, in this apparatus, I have caused to be placed invisibly behind the switch-board and fixed in complete overlap upon the primary helix. This coil is immovable and does away with former sledge methods of sliding coils on and off, while it generates at all times the maximum of inductive influence.

Tube No. 2 is of much lower resistance, ranging from 55,000 ohms down to a residual resistance of 4000 ohms, and is suited to the regulation of currents of small voltage, from short, coarse coils or other applications where great tolerance exists, as within the pelvis. An additional turn of a switch also cuts out these secondary rheostats and furnishes all currents direct from the coils, in case this is desired. The metallic rheostat in the primary circuit then regulates the dosage by altering the E. M. F., but this rheostat takes no part in my special method of dose registration.

In my method, in applying a given current strength to a patient, it is

simply considered that the energy at first wholly absorbed within the secondary rheostat, when perception of the current is nullified on its passage through the rheostat to the patient, is transferred from the controlling grasp of the rheostat to exert an equivalent energy within the tissues when the descent of the movable rod in the tube reduces resistance proportionate to its descent, and in exact proportion raises the current strength in the part of the circuit between the applied electrodes. In other words, as the restraint of the current falls in the rheostat its released energy rises in the patient, and by measuring the degree of restraint we find the equivalent of the released energy.

"Things which are equal to the same thing are equal to each other," and knowing the graduated resistance in electrical units of ohms interposed and removed from the secondary circuit at will, our knowledge of Ohms' law substantially defines for us the values of therapeutic dosage. We have only to let a portion of the measured rheostat substitute itself for the patient's tissues while we at first test the degree of energy to employ, and next to pass on the same current value to the patient, to arrive at a very practical measure of the dose administered. The resistance of the body is compensated in the process and causes no error, and the battery E. M. F. is unaltered during the dose regulation.

(To be concluded in next number.)





Book Reviews.

THE HISTORY OF ORATORY FROM THE AGE OF PERICLES TO THE PRESENT TIME. By

Lorenzo Sears, L. H. D., Professor
in Brown University. Published
by S. C. Griggs Co, Chicago. Price,
\$1.50.

Regarding oratory as a fine art like painting, sculpture or architecture, the author has traced its history in the achievements of leading orators in Greek, Roman, Patristic, Medieval, Reformation, Revolution, Parliamentary and American periods, through twenty-four centuries in all. Brief biographical summaries are followed by estimates of eloquence and observations on the drift and character of public address in the several periods. Service rendered the science and philosophy of oratory by such rhetoricians as Aristotle and Quintilian is noted, and, at the other extreme, the extravagancies of medieval and crusading preachers. American representative orators from Samuel Adams to George William Curtis receive due attention, while the value of the press in supplementing and disseminating public speech is emphasized. A retrospective and prospective view of the subject closes the volume. The author found the field practically unoccupied, and has been the first to traverse its entire length with as much definiteness as a sketch of four hundred and forty pages will permit. An index of about two thousand topics makes the book valuable for reference and a study of the subject.

PRINCIPLES OF SURGERY. By N. Senn, M. D., Ph. D., LL. D., Chicago. Second edition. Thoroughly revised. Illustrated with 178 wood engravings and five (5) colored plates. Royal octavo, pages xvi, 656. Extra cloth, \$4.50 net; sheep or half-Russia, \$5.50 net. Philadelphia: The F. A. Davis Co., publishers, 1914 Cherry street.

The second edition of this excellent work comes to use with much new material. During the past five years the principles of surgery have undergone much improvement and are consequently incorporated in the text. The technique of several operations is described and illustrated for the purpose of demonstrating the value of a thorough knowledge of reparative processes.

The work deserves the cordial support of the profession.

LITERARY NOTE.

P. Blakiston, Son & Co., of Philadelphia, announce a book on "Appendicitis," by John B. Deaver, M. D., assistant professor of applied anatomy, University of Pennsylvania; assistant surgeon to the German Hospital, etc. The book will be arranged in a practical and systematic manner. The history, etiology, symptoms, diagnosis, operative treatment, prognosis and complications of this disease will be given in the order named. It will contain about forty illustrations of methods of procedure in operating, and typical pathological conditions of the appendix, the latter being printed in colors.



Correspondence.

TREATMENT OF CANCER.

Editor of the "Times and Register:"—Dr. Monell's articles are good medical reading, because they come from a man of truth who does not exaggerate; the case of cancer of the uterus which he improved by systemic treatment and which was killed by two things—fright at diagnosis of cancer and shock by operation—deserves some comment. I venture the assertion that if the woman had not been told anything more about her trouble, but had been toned up and carefully managed she would be well to-day; at any rate, living.

Cancer is a disease of nutrition; a redirection to embryonic types of tissues because nature has been tremendously outraged by loss of nerve force in some excessive manner. In my own cases there have been such a history of loss of nerve force by family trouble, grief, poverty, riotous living, nursing of the sick for a long time, separation from a husband, unfaithful husband, crime in one's family, etc.

Dr. Epraim Cutter in *Alb. Med. Annals*, 1887, July and Aug. presented his "Diet in Cancer;" 1877 Oct., *Amer. Journal of Obstetrics*, "Food as a Medicine in Uterine Fibroids;" 1891, the *Medical Bulletin*, Aug. and Sept., "Diet in Tumor and Cancer." Dr. S. E. Herrick, of Cleveland, O., has written cancer as a disease of nutrition. Graily Hewitt and J. Marion Sims have also written on fibroid tumors as diseases of nutrition.

"Cemetery doctors" whose prognoses are always toward death make a good deal of trouble and disaster;

surgeons who treat only by cutting do nothing but treat results and not causes. Can fibroid diseases or cancer of the liver be attacked surgically? Yet some cases have succumbed to systemic treatment.

Cancer, medically, is a tough disease to fight, takes all one's energies, yet I believe the cases that cannot be relieved can be made more comfortably medically than surgically. I have seen cases called cancer of the breast get well without any operation, and I have seen cases of cancer of the breast made much worse by operation; also as to cancer of other parts of the body.

For one to say that cancer is curable is to place himself liable to the term "quack," yet there are many cases to show that surgeons either do not know what cancer is, for cases called by them cancer have recovered under systemic treatment, or all cancer is not cancer. Why not, then, give the patient the benefit of the doubt and fight for his or her life?

Surgery has done much in the last two decades; medicine has done more for many of the so-called incurable chronic diseases are now known to be curable. This work is being done quietly, but the record of truth is here. If ideas are wanted as to systemic treatment in cancer they can be given and gladly.

In closing I must say that I am somewhat of a user of the microscope, but clinical facts are worth more than all the dicta and dogma of the laboratory.

Faithfully yours,
JOHN A. CUTTER, M. D.
New York, Feb. 1, 1896.

"OPERATE BETWEEN THE ATTACKS."—A CRITICISM.

Editor "Times and Register:—"

Surgery is promoted and exploited as one of the most exact and scientific departments of medicine. Surgery and surgical descriptions are extensively exhibited in our modern periodicals and our more ambitious text books, but are not always clear as to methods or results. A surgical maxim ought to be indubitable in form and meaning. The exact and literal repetition of an imperfect surgical saying by one expert after another, indicates a slavish following of an original authority with insufficient comprehension of the words used.

Take the well-known dictum, which seems to have become current coin with the whole surgical world, that: "operations for recurrent appendicitis should be made between the attacks." Perhaps the originator of this bit of lucid surgical English is not known. The formula needs a commentary. What does it mean? Does it seek to enjoin that an attack of recurrent appendicitis should be followed after partial or complete recovery by excision of the appendix vermiformis? Or does the "operation between the attacks" mean, as the construction obviously implies, that another attack is bound to follow in spite of surgery and in spite of medical art?

The American Medico-Surgical Bulletin of January 11, 1896, p. 35, says, that "Roux has operated upon 95 cases of recurrent appendicitis,

between the attacks, removing the appendix about five or six weeks after the last one. * * * The intervals between the attacks were from one to forty years." But spontaneous cures occur, according to Roux, and it is evident that his recommendation would be to "operate five or six weeks after an attack," and surely this would seem to be haste enough since another recurrence need not be expected under from one to forty years, according to the Bulletin abstract. But if excision of the appendix effects a final cure of appendicitis, then there can be no such thing as operation by excision "between the attacks," and to preserve this inaccuracy of dogmatic record and instruction is both inelegant and misleading.

The persistence of this essentially weak and over-burdened maxim through many years and through the writings of hundreds of surgical specialists indicates some peculiar aptness or happiness in its indirection and verbal untruthfulness. Its use has been sanctioned by time and seems likely to continue so long as the operation for recurrent appendicitis remains popular. It will not be dropped, but will not some surgeon who uses this phrase explain why such a bungling collocation of words is esteemed necessary or ornamental in the discussion of a scientific procedure?

ARTHUR DE VOE, M. D.,
Seattle, Wash.

January 20, 1896.

HOW TO STOP HICCOUGH.

Editor "Times and Register:—"

Take a deep full inspiration, filling the lungs to their utmost capacity; then don't let out any of the air, but breathe in little short breaths. Keep this up till the hiccoughs are gone. Hiccoughs are caused by irritation of the laryngeal or pharyngeal nerves, as by swallowing hot coffee, pepper

or irritants, causing reflex action, and then transmitted to the diaphragm and intercostal muscles. Filling the lungs puts these muscles on the stretch, paralyzing and relieving the spasm. This method has been tried with success.

J. M. WHITE, M. D.,
Shuqualak, Miss.

Current Medical Literature.

“AN EXPLANATION CONCERNING THE PRELIMINARY COMMUNICATION ON CITROPHEN.”

Abstracted from the *Deutsche Medicinische Wochenschrift*, 1895 Nos. 32 and 44. By S. Seifert.

In his preliminary communication that appeared in No. 26 of the *Deutsche Medicinische Wochenschrift*, Dr. Benario very evidently intends to claim priority for a medication composed of phenetidin and citric acid. Such combinations, however, have been used for antipyretic and analgesic purposes in the Warsaw hospitals for many months past, and the results there obtained have been published in extenso by Dr. Leon von Nencki and Dr. Josef Jaworski in the *Gazeta Lekarska* of May 27, 1895, and the following numbers.

There are various combinations of citric acid with phenetidin, all of which have been prepared by the chemical factory of Dr. F. von Heyden's successors. One molecule of citric acid can be combined with three molecules of phenetidin, giving us citrophen;* but it can also be combined with two and with one molecule, giving us entirely different substances. Nencki and Jaworski have proved that the most useful of these combinations is that which contains

the largest number of intact acid groups. This is Apolysin, which contains two complete citric acid groups.

Apolysin is also the most freely soluble of the series. It dissolves in 55 parts of cold water and in less than one part of warm water. There are metallic salts of Apolysin, but it is the combinations with quinine, caffeine, etc., that deserve especial attention.

There are errors in Dr. Benario's paper, due possibly to printers' mistakes. But the fact remains that citrophen is very insoluble, requiring no less than 13,00 parts of cold water for its solution.

Apolysin has the following advantages over phenacetin and the other remedies of that group:

1. It is very soluble, and hence more readily and completely absorbed.

Its action is, therefore, quicker and surer.

2. There are no by-effects, even when large doses are given. The well-known cardiac depressant effects of phenetidin, which are distinctly seen in phenacetin, are not to be found in Apolysin. This is probably due to the similarity of Apolysin to citric acid, and is in accordance with the law discovered by Professor M. von Nencki (in the St. Petersburg Institute for Experimental Medicine), that the entrance of an acid group in a poisonous substances lessen or removes its poisonous properties. The chemical difference between Apolysin and phenacetin consists in just such entrance of acid groups.

In consequence of its non-poisonousness, Apolysin can be given in large doses for the attainment of a marked and rapid antipyretic and analgesic effect without any danger of concomitant effects.

* Apolysin is not in any way related to the citrate of phenetidin (citrophen) with which Dr. Treupel (*Deutsche Medicinische Wochenschrift*, 1895, No. 33) has experimented. This is poisonous, like all the phenetidin salts: whilst Apolysin is practically non-poisonous, being not a simple salt of phenetidin, but phenetidin permanently combined in an anilid-like form. The addition of carbonate of soda to Treupel's citrate of phenetidin causes the immediate separation of phenetidin as a free poisonous base; but the phenetidin cannot be separated again from apolysin.

GUAIACOL CARBONATE AS A SUBSTITUTE FOR CREO- SOTE IN PHTHISIS.

BY MILBREY GREEN, M. D., BOS-
TON, MASS.

Abstract from the Massachusetts Medi-
cal Journal, January, 1896.

Creosote is not a definite chemical product, but is a mixture containing guaiacol, toxic cresols and toxic derivatives of pyrogallol. It contains from 60 to 90 per cent. of guaiacol. Carbonate of Guaiacol contains 91 per cent. of chemically pure guaiacol, in combination with 9 per cent. carbonic acid.

I used creosote in phthisis from 1880 until about four years ago, when my attention was first called to guaiacol carbonate, which I have since used as a substitute for creosote. My experience with creosote was the same as the majority whose reports I have read. I tried it in almost every form that experienced practitioners, in Europe and this country, had recommended, but found many patients who could not tolerate it in any form or dose. Others could take small doses for a few weeks and then were obliged to give it up. Some could take from 5 to 8 grains per day, but found it impossible to go beyond such doses, even after intervals of rest, and trials of a variety of forms of administration. Occasionally I found patients who tolerated from 20 to 25 grains per day, with very beneficial effects.

Since the carbonate of guaiacol was brought to the notice of the profession I have prescribed a large amount of it—giving from 60 to 90 grains a day—and in no instance has it disturbed the stomach or produced disagreeable symptoms, and I believe it to be an inevitable remedy in phthisis pulmonalis.

Some of the cases I have treated with guaiacol carbonate within the past three or four years, I believe, would not have recovered without it. Auscultation and percussion revealed disease of portions of both lungs, and the microscope showed numerous tubercle bacilli in every field. There was high temperature, dys-

pnea, harassing cough, profuse purulent expectoration, night sweats, emaciation, great weakness and little or no appetite. In several instances there had been one or more hemorrhages, followed by sanguineous expectoration, which continued for a week or ten days. In one case, which is described in detail, there had been three severe hemorrhages and sanguineous expectoration continued three weeks, purulent, and with bad odor. This patient recovered so that he can attend regularly to his business. When the temperature manifested any regularity in its paroxysms, as was sometimes the case, I gave 30 to 40 grains of guaiacol carbonate an hour before it made its appearance, with beneficial effects, the paroxysms being shorter. When the temperature was not above 100 degrees I usually gave the drug, in equally divided doses, morning, noon and night, commencing with 15 or 20 grains at a dose, and increasing to 30 grains. The most marked effect was in the improvement in appetite, and increase of strength, which was often apparent within a week or ten days, and the lessening of the expectoration and cough, and especially in the disappearance of the odor and purulent character of the expectoration. After a few weeks, in some instances, the fever was much diminished, the night sweats disappeared, and the patients improved steadily, like those before mentioned.

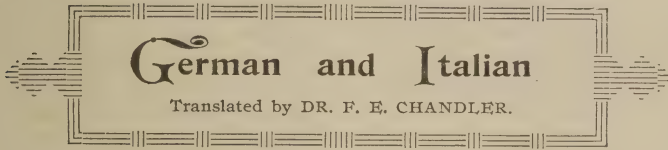
In ordinary cases I commence with 10 grains three times a day and increase the dose steadily, so that at the end of three weeks 60 grains a day are taken, generally after meals. Most patients prefer to place it on their tongue and wash it down with a little water, as it is not disagreeable. When there is a tendency to nausea it is better taken 10 or 15 minutes before meals, as it frequently relieves the nausea.

So far I have only spoken of the effects of the drug, but I never place my entire dependence on it, or any other drug, in the treatment of phthisis, unless, in a measure, forced to do so, as in the two cases reported. I

always insist on the strictest attention to diet and hygienic measures. While I consider this drug an invaluable remedy, I believe it a duty to employ every additional resource that experience has shown may possibly aid in restoring the patient to

health. Every case must be studied by itself, and such special treatment given as the case demands.

The carbonate of guaiacol should be continued until repeated examinations have proved that the sputa is free from the tubercle bacilli.



PERSISTENCE OF THE DIPHTHERITIC BACILLUS IN THE NASAL MUCUS.

MM. Legendre and G. Pochon presented before the Soc. Med. des Hôpitaux a remarkable case of persistence in the nasal mucus of the bacillus of diphtheria, showing variations of virulence.

A child, who had been under observation for 15 months, had been three times attacked with diphtheria (once angina, once stomatitis and rhinitis, once rhinitis and angina). Bacteriological examination methodically made 13 times, showed the bacillus sometimes virulent, sometimes innocuous in various forms, medium sized, small, and even cocci; sometimes alone and sometimes associated with staphylococci.

Antiseptic douches cause their disappearance, but as soon as it is discontinued they develop again.

—Le Progres Medical.

TANNIGEN.

M. de Buck, of Gand, has made a therapeutic study of this substance, which is a diacetic derivative of tannin. This body, whose formula is (C₁₄ H₈, (CH₃, CO₂) O₉), was discovered and first used by Dr. H. Meyer, of Marburg (Hesse-Nassau).

Tannigen has the advantage of being indifferent to the gastric functions. In the intestine it saponifies, is absorbed and eliminated in the urine as gallic acid.

It is an active astringent and very certain constipant.

It has neither odor nor taste, and consequently is easy to administer in a little milk.

It acts upon all but the nervous forms of diarrhea, and M. de Buck says that it is a prompt curative remedy for acute inflammatory conditions of the intestines. It is positive that it influences very favorably chronic intestinal catarrhs, even those of specific origin. The doses given by MM. Meyer, Mueller, Kunkler, et al, vary from gm. 0.10 to gm. 1, three or four times daily.

—Belgique Med., No. 37, 1895.

Dr. R. Drens, of Hamburg, has used tannigen in infantile diarrheas. His results were excellent. He considered it as having an astringent, antiputrid and antibacterian action, without in the least deranging the functions of the stomach. He gives it in doses of from gm. 0.30 to gm. 0.05, according to age, and administers it three or four times daily.

—Journ. de Clin. et Therap. Infant., 1895.

In the seance of the Academie de Medicine, of December 3, 1895, Dr. Cadet de Gassicourt, communicated the results obtained by Prof. Moncorvo, of Rio de Janeiro, in the treatment of infantile diarrhea with tannigen. This substance was given to 21 children in doses of from 0.25 to 2.0 grammes in 24 hours.

In most of the cases the success was as rapid as certain.

The number of motions diminished considerably, the evacuated matter became harder, and the general condition of the children improved visibly. Absolutely no unpleasant symptoms were caused by the drug.

—Therapeutische Wochensch., No. 49, 1895.

INFECTIOUS ORIGIN OF ACUTE DELIRIUM.

BY DRS. BIANCHI AND PICCININO.

Among the psychopathic forms which simulate acute delirium, and which have until now been described as such, is one to which may be given the name of acute bacillary delirium. It is clinically distinguishable from all the other forms through its greater intensity of symptoms, by the adynamic phase that promptly succeeds the phase of exaltation by its short duration and its fatal issue; bacteriologically by the presence in the blood and nervous centres of a peculiar bacillus that the authors have found in all the cases which have come under their care.

Fever does not necessarily indicate the bacillary nature of an acute delirium.

Acute bacillary delirium must be considered as a very serious infectious disease, in which the symptoms of excitement are followed by depression of a most serious and typical kind.

A bacteriological examination of the blood will alone identify beyond a doubt the character of the malady.

In the other forms of acute delirium and of mania, a bacteriological examination gives equally positive results.

If, however, the proof of the presence of micro-organisms shows a biological connection between the clinical form and their presence in the blood, in the sense that they disappear or diminish greatly in numbers with the amelioration of the patient, that does not yet authorize us to infer an immediate connection from cause and effect.

The presence of micro-organisms in these cases only proves with cer-

tainty that there is a great disturbance of nutrition forming a highly favorable soil for the development of bacteria, bringing about, consequently, a deterioration of the whole organism, with rapid wasting, fever and other toxic effects upon the functions of the nervous system, the maximum of which is delirium.

The bacteriological results obtained by investigating all other forms of sensory delirium, which resemble the true variety, justify the criticisms of certain authors, who have been unable to find the bacillus described by Bianchi; for these forms of acute sensory delirium are much more common than true acute delirium, which is very rare.

—Annali di Neurologia.

MANZ'S GLANDS IN THE NORMAL HUMAN CONJUNCTIVA.

In 1859 Prof. Manz discovered in the conjunctiva of the pig, glands, which Henle afterwards found in the human conjunctiva. From then until now neither Manz nor anyone else could find them again, so most anatomists denied their existence. Dr. T. Theodorow, of Moscow, has rediscovered them, and his description coincides with that of Manz and Stromeyer. T. stained the fresh conjunctiva with hemotoxylin, and spread them out as flat as he could before examining for them. He was thus able to find the glands in conjunctiva from people of all ages.

The glands are round or oval shaped bodies, distinctly shown by the stain. The periphery is more distinct than the centre, and shows lines which radiate towards it. A brilliant white, sharply defined, oval opening is found exactly in the centre of the round bodies, while in the oval ones it is nearer the periphery.

These glands are mainly found in the tarsal portion of the conjunctiva, but are very rare near the cornea; they are often in pairs, and each lid contains from twenty to thirty.

In transverse section they resemble a pocket-shaped hollow underneath the epithelium of the conjunctiva, with an excretory duct opening on the surface through a constricted neck.

A hyaloid membrane, with lining of cylindrical epithelial cells, lines both the sack and its neck. The glands are mostly perpendicular to the conjunctival surface, and are filled with free cells and detritus. The use of these glands is unknown, but Theodorow thinks that they must play some important role in the pathology of the conjunctiva.

—Centralblatt f. prakt. Augenheilkunde, 1895, p. 257.

THREE CASES OF GANGRENE OF THE EXTREMITIES IN YOUNG PEOPLE.

In the Jewish Hospital of Warsaw, Dr. Gotard had at one time three cases of gangrene of the extremities. The patients were aged respectively 27, 40 and 46 years. The disease commenced in all of them with severe pains in the fingers and toes, therefore, in the parts farthest removed from the centre of the circulation. After a while abscesses formed at the painful points and became the starting point of the gangrenous process.

Conservative treatment was useless, and the gangrenous portion was amputated. Scarcely had the wounds commenced to heal when

gangrene reappeared either on the stump or on another finger.

The first patient was tuberculous; gangrene began on his left leg in 1890. The second case, a fish dealer, 40 years of age, contracted syphilis in his 26th year; in the third case no direct lues could be found. As objective cause only the slowing of the pulse in certain arteries could be shown. In the second case the pathological anatomical examination of the amputated portion showed endarteritis obliterans.

—Gazeta Lekarska, No. 39, 1895.

FORMALIN CATGUT.

Dr. Vollmer says that a two per cent. aqueous solution of formalin will, in 24 hours, kill every germ in catgut, even without previous removal of the fat.

Things sterilized in this way should then be kept in a 0.5 solution of the same substance. However, since the keeping qualities of the solution deteriorate after a fortnight's time, Dr. V. prefers a sterilized Tavel's solution (Na. Cl. 7.5; Na₂ CO₃, 2.5, aqua destillata ad 1000.00).

In this way the objection common to most antiseptics and to formalin, as well, that they benumb the hands, is avoided.

—Centralbl. f. Gynaek. No 46, 1895.

Russian and German

Translated by DR. A. D. DAVIDOW.

WARM AND COLD BATHS DURING MENSTRUATION.

M. Merinow—Eschenadelnik, 1895, No. 22.

In various gynecological affections, general baths (27-28 degrees R.) are not only harmless but have the power of quieting pain, do not influence the menstruation nor make it scanty.

Women with healthy genital apparatus and normal menstruation, taking baths of 32-33 degrees R. (patient sitting in the water up to the

waist) at the menstrual period surrender. Thereupon author observed no effects; the quantity was rather less and the period shorter. The author cites numerous clinical cases with results confirming his views.

CORIIITIS RHEUMATICA.

A. Pjassitsky—Ibid No. 4.

Author observed that on the skin of persons exposed to catching cold and living in damp quarters, appear peculiar bluish-red stripes from 1-2 ctm. long which represent the dilated

venous capillaries. This symptom is abundant in skin rheumatism. The temperature is not raised, the skin is very sensitive, the muscles lying beneath the affected portion are not tender on pressure. Frequently, however, the muscles and joints may simultaneously be affected. The clinical picture of skin rheumatism, when localized on the chest, deserves special notice; the patient impresses one as being severely affected with asthma. Treatment consists internally *natr. salicylate* and rubbing in with chloroform.

THE DISINFECTIVE ACTION OF IODOFORM.

R. Schimminsky, *Wratch*, '95, No. 28.

In a culture of *staphylococcus pyogenus aureus*, author placed iodoform, of which the vital activity of the same was not impaired. Amongst other experiments were those on rabbits, on whom fresh wounds were made and a three day colony of *streptococcus* and *staphylococcus* applied. One was dressed with iodoform and the other without. On the 10th day in all suppuration appeared.

The iodoform bought in the market contains generally germs and to free it, it is necessary to treat with sublim. or carbol.

ON THE CAUSES OF THE LES- SENSING THE LEUCOCYTES IN BLOOD AFTER INJECTION OF DIFFERENT SUBSTANCES.

N. Tschistowitsch—*Bolnitschnaja Gasetta* Botkiva, No. 22-36.

Author in many of his works made himself known as a follower of the Soldscheider-Jacobs theory, which is, that after injections of bacteria cultures, tuberculin, hemi-albumose, etc., a general hypoleucocytosis ensues by the aggregation of the leucocytes in the capillaries, especially in that of the lungs.

In the summer of 1894, author again made attempts to explain the hypoleucocytosis, in the laboratory of Kronstadter Marine Hospital. In

a number of experiments on animals author found the number of leucocytes in the peripheril (ear) and centrally (mesentery) vessels after injections of pepton and tuberculin solution in the blood and found, as before, marked hypoleucocytosis. In another number of experiments, the animals were killed as soon as hypoleucocytosis set in, and while the heart yet pulsated, made microscopical specimens from the internal organs. The capillaries of the lungs, rarer than of the liver and spleen, showed themselves filled up with leucocytes, namely, of the polynuclear cells, which quantity diminished in the larger vessels. Especially clear is this after injection with typhus culture and cultures of Frankels diplococci. As the cause of such division of the leucocytes, author gives first the contraction of the vessels in the lesser circulation after an injection, through which the lung capillaries act as the first filter, in which the pressed in leucocytes are arrested. This is favored by the increased and diminished circulation of the leucocytes, due to the sucking up of the injected substance. Aside from this, the heart action is weakened, causing anomalies in the circulation; finally the blood-making organs are weakened, which influences in lessening the leucocytes in the blood circulation.

ON THE ACTION OF BROMOLITHION ON ALBUMINURIA AND THE KIDNEY SECRETIONS IN ACUTE AND CHRONIC PARENCHYMATOUS NEPHRITIS.

K. Pawlowsky—Ibid, No. 29.

In 22 cases of nephritis, author used bromolithion, and found the quantity increase daily, specially so in the acute forms, frequently reducing the quantity of albumen. Once hematuria, twice nausea and once vomiting was observed. In nephritis associated with pregnancy, it was as well found to be of great benefit.



REPRODUCTION AND THE LAW OF THE SEXES.

The end of living is for the preservation of the species. This end is attained in nature, both by reproduction and by the perennial nature of the individual. In fact, there are beings who may be considered immortal—as some plants and inferior animals, such as infusoria or rather protozoa, which multiply by division or fissiparity indefinitely under favorable circumstances. Each of these individuals is formed from the original substance—multiplication by budding. Gemmiparity is only one form of division. It is a part of the individual emitted and detached, which later on in its turn goes through the same process as is seen in plants of the higher orders. But among the superior beings the preservation and continuance of the species do not occur by the multiplication of the individual, but by the division and multiplication of the protozoa—cells—which compose it. This individual being is not immortal; one day the elements of which it is composed return to the mass of eternal matter to there undergo fresh transformations. In recompense for this, the property of creating new beings like itself has been conferred on it, and the species is continued by the function of reproduction.

The preservation of the species is more important than that of the individual. In plants many kinds die as soon as they have borne fruit, whilst others only cease their activity until again placed in favorable circumstances, when they again take on life. The same thing is seen among insects, in which certain kinds are only created for the express purpose of continuing their kind, and which die immediately

after they have fulfilled their purpose.

It is no longer a question of a simple multiplication. It is a generation, an operation which depends on two individuals or rather two elements, the positive and negative; or, in other words, male and female. In the act of sexual reproduction each individual tends to engender one of the opposite sex, according to which is the most active at the time functionally.

The law of procreation by each sex, of the opposite sex, explains why generally girls resemble rather the father, who generally also likes them better than boys, and the reverse. It must be noted in passing that incest, although deemed by society a crime, is nevertheless allowed by nature, as is seen in all animals, and which to the first inhabitants of the globe was obligatory, for if it had not been so, where would be the population of the world? The law of procreation by each sex of the opposite sex explains why under ordinary conditions of marriage the eldest child is generally a girl, whilst the youngest is often a boy, and generally the best loved of the family by his mother.

—Dr. Pelletan, Jour. d'Hygiene.

EPITHELIOMA OF ESOPHAGUS.

M. Stroup reported case of a man who had cancer of the esophagus, though nothing during life in the way of pain or dysphagia. He died suddenly of gastrorrhagia. The tumor was primary, extending downward along the pre-vertebral ganglia to the lesser curvature of the stomach, where it had contracted adhesions. These, later, breaking down by ulceration, opened widely the gastric vessels, from which fatal hemorrhage followed.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

TREATMENT OF CONGENITAL DISLOCATION OF HIP JOINT.

M. Calot declares that if we are not able to reduce these luxations before the third year we should have recourse to surgery. Reduction by manipulation, however, he maintains is exceedingly rare. Operation should be withheld only in those cases of absence of the head or neck of the bone; or when the femoral head is advanced far anterior to the diaphesis. In order to obtain the best results, by surgery, we must either resect the head, or gouge out a cavity for it, in the obliterated acetabulum. The anterior incision gives much greater facility for manipulation here than that of Hoffa or Langenbeck. About six months' recumbency in bed is required before such cases are allowed to walk about.

—Nuevieme Cong., Trans de Chirurg., Revue de Chirurg.

INJECTION OF IODOFORM IN THE TREATMENT OF SURGICAL TUBERCULOSIS.

(By Wieland.)

In the adult, under a great diversity of circumstances, we may spare our patient the dangers of a surgical operation by the intelligent employment of iodoform injections.

With children, the results are even better, in those cases involving larger joints, and widely disseminated; as in white swelling and other tubercular arthroses chiefly confined to the synovial membrane.

The late researches of Bruns and Nauwerck leave no doubt on the specific action of iodoform on the bacillus of Koch, and its progenic residue, which now undergoes fibrosis and cure. In 70 cases Weiland cured 54 by this plan—77 per cent.

THE TREATMENT OF TORTICOLLIS.

Dr. Weiss recommends the use of curare in this disorder. He employs a filtered solution of curare, of the strength of two grains to three drachms of sterilized water. This is given in doses of from fifteen to thirty minims.—N. Y. Med. Record.

CONTRIBUTION TO THE TREATMENT OF ACTINOMYCOSIS.

(By Towney.)

A man of 51 years came under his care with a tumor in mastoid region, which proved to be actinomycosis. Being very large, it was simply incised and the incision well saturated with tincture of iodine. Later it underwent atrophy, when a prompt cure followed. The author believes this infection may commence in the cecum and simulate appendicitis. The prognosis of actinomycosis has become more hopeful, as recovery is the rule. Iodide of potash is practically a specific, when taken internally, in destroying the fungi or actinomyces.

—Annales de Med., Dec. 29, '95.

THE VOMITING OF BILE STONES.

(By Dr. Gaillard.)

This author briefly reports on the pathological conditions which lead to the expulsion of biliary calculi through the stomach.

These calculi, after reaching the stomach, are not acted on by the gastric juice and hence are discharged unchanged. It may be said that these concretions cannot return through the pyloric opening, which offers an effective barrier against stones which are sent through the common duct into the small intestine, working their way into the stomach.

Biliary calculi make their way

into the stomach by three different routes.

First—By gastric-cholocystic fistulae (Creiveilhier, Nauyre, Bardenhauer); second, by hepato-gastric fistulae (Bassaud, Clin. Murchison); third, by cholocysto-duodenal fistulae, the most frequent of all; and lastly, cholecho-duodenal. Those which pass in through the natural duodenal passage or a fistula are rarely vomited. From a practical standpoint, if our patient have no icterus, and with the calculus, blood and pus are vomited with gall, we may know that there is a chologastric fistula.

If our patient rejects several small calculi and has had jaundice we know he has a choloduodenal fistula.

Lastly, if one have not had jaundice, and raises many bile-stones, who previously had melena and hematemesis, we will diagnose cholocysto-duodenal fistula. Each type calls for a special therapy, according to indications present.

The author reports a case in his own practice of cholocysto-intestinal fistula. The patient complained of constant pains over the epigastrium; no jaundice. For many days the pain was agonizing, but there was no jaundice. Finally a large calculus was vomited, when all pain ceased. The author concludes that when a calculus is too large to engage in the cystic duct, adhesive pericystitis may be provoked, leading by an ultimate pressure-necrosis, to perforation and escape into nearest hollow viscus. We will have then biliarylithiasis with cholocysto-intestinal fistula.

In these cases the questions raised are: First, What point of the intestine is the seat of fistula? Second, Why should there be so much suffering? Third, How long must pain continue? In case considered it was difficult to determine the seat of perforation, because there was tympanites of abdomen from the moment of the dolorous crisis; but this might be explained by "peritonism" and a reflex paresis, seated possibly as low down as the colon; but the late researches of Courvisier and Naunyn (1892) make it more probable in the duodenum. In one case of a

woman, the cystic duct was closed more than a year. She had a perfect cholocysto-duodenal fistula. There were no symptoms of colobacillary infection of the hepatic passages.

In cases of the latter type, in which the stone, from its great size, becomes engaged, but cannot pass through, coincident with which there are grave constitutional symptoms, surgical intervention offers the promptest means of relief. Cholocystotomy, with extraction of the stone, or, better yet, cholocystectomy and suture of the fistula in the bowel.

—*Annales de Medicine*, 12 Dec., '95.

RUPTURE OF THE BILIARY PASSAGES, CONSECUTIVE TO A CONTUSION OF THE ABDOMEN.

(By Dr. J. Roux.)

Grave contusions of the hepatic structure are rare. The author reports a case of a man 33 years old, who, after a fall over the left hypochondrium, had bilious vomiting with fecal admixture. Two days after the accident, the abdomen, being enormously distended, was tapped, when seven litres of fluid, rich in bile pigment, were drained off—about one and a half gallons. In two months the patient had entirely recovered. The absence of pronounced peritoneal reaction is easily explained by the fact that the bile passages are entirely aseptic, except at the opening into the intestine. (Duclaux, Depre, Tizzoni and Loresta.) (We might include our own Feuger, of Chicago.—T. H. M.)


As to therapy, the author concludes, with Rouher, that because of the difficulties in making a precise diagnosis of the seat of rupture, intervention should not be immediate, and the case should be treated on tentative lines. We should reserve laparotomy for those cases in which peritoneal reaction is intense. If there be no peritonitis, the effusion is entirely harmless and a simple evacuation with the trocar is ample to relieve temporary distension.

—*Gaz. des Hop.*, Dec., '95.



Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.



VENESECTION IN OBSTETRICS.

In a paper read before the Medical Society of the Missouri Valley at St. Joseph, Mo., Dr. William B. Dewees related his experience in a number of cases during a period of sixteen years, and concluded by saying that venesection at the time of parturition in certain plethoric morbid conditions is a safe, easy, prompt and effectual means of:

1. Relieving the sufferings of parturition.
2. Relieving the rigidity of the os uteri, perineum and adjacent soft parts.
3. Facilitating the delivery of both the child and the placenta.
4. Preventing irregular or spasmodic contractions of the uterus.
5. Preventing such accidents as have occurred from rigidity of the os uteri, the perineum and adjacent soft parts, and the irregular spasmodic contraction of the uterus; namely: Rupture of the uterus, laceration of the cervix, perineum and sphincter ani; protrusion of the cervix before the head of the child, which in some cases had to be divided before delivery, was effected, inflammation and gangrene of the soft parts from too long pressure of the child's head, by the prolonged, frequent and repeated violent contractions of the uterus; atony of the uterus, which has succeeded even after the soft parts and os uteri yielded and the child was delivered by instrumental aid, and hemorrhage supervened, which frequently proved fatal.

In short, to say nothing of the injuries inflicted upon the child, when we add to these the risk of convulsions and rupture of the blood-vessels, all of which have happened and may happen again, under similar circumstances, we cannot conclude

without again raising a voice in favor of venesection as a most valuable aid in relieving and preventing the sufferings and conditions herein enumerated.

—The Medical World.

SHOULD INTRAUTERINE INJECTIONS OF GLYCERIN BE USED FOR THE INDUCTION OF LABOR.

At a meeting of the American Association of Obstetricians and Gynecologists Dr. Hypes, of St. Louis, Mo., in his paper on this subject reported several cases where the result of using glycerin for the induction of labor had proved unreliable as well as unsafe.

"Pelzer's method" has now been before the profession long enough, and sufficient cases (between thirty and forty), with results, have been reported for an intelligent judgment to be passed as to its value.

He cites five cases, all presenting evil effects from the intrauterine injections of glycerin for the induction of labor. While different organs were affected—kidney, liver, stomach, bowels, brain, nervous system—the kidneys suffered invariably. These symptoms can all be accounted for by the poisonous effects of glycerine upon the blood, decomposing as it does the red blood corpuscles.

Pfannenstiel, as quoted by Embden, says glycerin is liable to occasion decomposition of the blood, as Lichsinger, Schwan, Filehne, Lebedeff and Wiener have demonstrated, and Afanassiew has shown by experimenting with dogs and rabbits that the hemo-globinuria caused by glycerin brings on a glomerulo-nephritis, which is followed after the injection of more glycerin by interstitial nephritis as well as by interstitial hepa-

titis, each case presenting the bloody urine with its constant constituents.

Pfannenstiel finds an explanation of the absence of accidents in Pelzer's cases in the fact that Schwan, Lebedeff and Filehne have shown that in rabbits when the glycerin is brought under the skin hemoglobinuria always occurs, but that it did not occur, or in a slight degree only, when it was injected directly into the veins. Without giving an explanation of this remarkable fact, Pfannenstiel deems it possible that in Pelzer's cases the glycerin was rapidly absorbed by the circulatory system, while in his case it acted in the decidua uteri as if it had been injected by the hypodermic method.

Whatever may be the explanation of the various effects of glycerin injections in the hands of different operators, the identity of the poisonous symptoms in the five unfavorable cases presented in his paper is incontrovertible.

Mikulicz, quoted by Pfannenstiel, says glycerin can induce poisoning when injected into absorbing tissues or cavities, and he has observed hemoglobinuria, accompanied by methemoglobinuria, appear in several cases in twelve to twenty-four hours after using such injections, disappearing in twenty-four to forty-eight hours without reappearing. In one case after curetting, two periarticular abscesses of the hip in a 4-year-old boy, sixty grammes of iodoform-glycerin, were injected, followed by severe hemoglobinuria, and death in four days.

The autopsy revealed acute parenchymous nephritis, edema of the lungs and fatty degeneration of the liver. This is almost the identical condition found in the autopsies after death where intra-uterine injections of glycerin had been used. That glycerin used in this manner is poisonous and deleterious admits of no doubt, and no degree of efficiency can justify the employment of means fraught with such danger, for it does not possess even the merit of certainty, as many operators, after using it, have resorted to other measures to effect delivery.

Glycerin injections sometimes produce very violent uterine contractions and hence must be followed by a great fetal mortality. In fact, Pelzer himself says that large doses such as one hundred cubic centimetres are apt to destroy the life of the child in this manner, and that he believed such a result happened in one of his cases.

In examining the thirty-three cases reported he finds that thirteen children were born dead, or survived but a few minutes, which is a very large mortality for an ideal operation.

To sum up the argument: Intra-uterine injections are often inefficient, especially so in doses under fifty cubic centimetres. They are liable to be followed by all the ill effects—shock, air embolism, thrombosis, metritis, and sepsis—of other intrauterine douches which have been used and abandoned during the present century. They may, and sometimes do, produce glycerin poisoning, i. e. decomposition of the blood corpuscles, resulting in diseases of various organs, but more especially in nephritis and hemoglobinuria.

The method takes no consideration of the life of the child and hence results in great fetal mortality.

Its use should be abandoned or the dosage reduced especially in subjects with prior existing kidney affections.

—American Journal of Obstetrics.

SUCTION OF THE NIPPLES IN THE TREATMENT OF FIBROUS TUMORS OF THE UTERUS.

In the *Centralblatt für Gynäkologie* for December 7 there is an abstract of an article by Dr. F. Howitz, of Copenhagen, published in the *Ugeskrift for Lager*, in which it is related that the author happened to have at the same time under his care two women, both of whom were pregnant, and both of whom had large fibro-myomata of the uterus. One of these women nursed her child, and an examination at the end of five months after its birth showed that her tumor had entirely disappeared.

The other woman did not nurse her child, and her tumor remained unchanged. These cases led the author to seek if by means of suction on the nipples a favorable influence could be exerted upon fibrous tumors of the uterus. He has tried it in only

five cases, the suction being carried out daily. In some of the cases there seemed to be a diminution of the size of the tumor, and in no case has any harm been noticed as the result of the procedure.

—New York Med. Jour.

Therapeutical Progress.

CAFFEINE.—The following salts are mostly very soluble. They have been recommended for hypodermic injection, and all contain about 50 per cent. of the alkaloid. Sodio-benzoate, 45.8 per cent.; Sodio cinnamate, 62.5 per cent.; Sodio citrate, Sodio-salicylate, 62.5 per cent.; Borocitrate, Phenate, phenylate or carbolate. Phthalates solution in water.

C. CHLORAL.—See chloral caffeine.

C. IODOL.—A combination in molecular proportions which does not liberate iodine as rapidly as iodol. Substitute for iodol.

CAMPHAR.—Supersaturated solution of camphor in diluted alcohol. Externally in dermatology.

CAMPHOID.—Combination of pyroxylon, camphor and absolute alcohol, used like collodion.

CANCROIN.—Alexin from cancerous tissue, according to Adamkiewicz. Clear, albuminous fluid, specific for cancer. Hypodermic inj. four min. once a day, increasing by four min. each day until 16 min. is given; continue this dose as required. Inject into sound tissue adjacent to cancer.

CANNABINE TANNATE.—Yellow or brownish powder, bitter astringent, slightly soluble in W. A. E., readily if acidulated, hypnotic, sedative, (hysteria, etc.). Dose four to eight grs, three times a day. Max. daily, dose, 30 grs.

CANNABINON.—From the tops of cannabis sativa. Balsamic, resinous body, insoluble in W., soluble in A., E., C., benzine, oils. Hypnotic dose, 1-2 to 1 1-2 grs., disguised in powdered coffee. 15 gr. vials. ea. 20. 10 per cent. trituration.

CANTHARIDIN.—From cantharis vesicatoria. Colorless, odorless, tabular crystals, soluble in A., E., dil. alkalis, insoluble in water. Recommended by Liebreich for treatment of tuberculosis. Hypodermic inj. of one cc. of 1 to 5,000 alkaline solution.

CARDINE.—Liquid extract from heart muscles of animals. Supposed to affect the heart as a tonic.

CARVACROL IODIDE.—Salt of phenol from oil of origanum. Yellowish brown powder, insoluble in W., soluble in E., C., oil; substitute for and used in same manner as aristol (and iodoform). Not in the market.

CEREBRINE.—Liquid glycerin extract from brains of animals. Supposed to exert a specific action on the brain.

CHAMPACOL.—Camphor of champaca wood.

CHINOL. (Chinoline or Quinoline Monohypochloride.)—White crystalline, odorless powder, almost insoluble in water. Soluble in A. Antipyretic. Dose, three to five grs.

CHINOLINE. (Quinoline, leucoline.) Synthetic alkaloid. Colorless hygroscopic liquid, with pungent characteristic aromatic odor. Very slightly soluble in cold water. Soluble in A., E., C., hot water. Turns brown on exposure. Antiseptic (locally in pharyngology, carious teeth, cotton saturated and pressed into hollow, renew every two hours). Antizymotic (0.2 per cent. preserves urine, 0.4 per cent. blood). Antipyretic. Dose, 15 to 30 min. daily.

CHINO-TOXIN. (Dichinolin-Dimethyl-sulphate, quinotoxin.) Synthetic, analogous in action to curare.

CHLORALMID. (Chloral-formamid.)—German Pharmacopeia. Lustrous, colorless, slightly bitter, crystals. Soluble in A., three glycerine, slowly in 20 water. Decomposed at 140 degrees F., or by alkalis. Valuable hypnotic, producing calm refreshing sleep within half an hour without bad after-effects. (Alcoholic insomnia, mental disorders, hysteria, neuralgia, pulmonitis.) Dose, 15 to 40 grs., dissolved in elixir, not to be confounded with chloralamid.

CHLORAL-AMMONIUM.—White crystalline unstable powder. Soluble in water. Hypnotic. Dose, 15 to 30 grs.

C. CYANHYDRIN.—See chloral hydrocyanate.

C. CAFFEINE. (Caffeine chloral.)—Molecular combination of chloral and caffeine. White scales. Soluble in six water, 30 A., insoluble in E. Decomposed by acids and alkalis. Analgesic, antirheumatic, laxative. Hyp. inj., two to seven grs.

C. CARBOL. (Chloral-phenol.)—Oily liquid mixture of equal parts of chloral and carbolic acid. Counter-irritant, epispastic and local anesthetic. For toothache.

C. CAMPHOR. (Camphorated chloral, N. F.)—Combination of equal parts of chloral and camphor, oily liquid. Soluble in A., E., C. oils, glycerin; decomposed by water.

C. HYDROCYANATE. (Chloral hydrocyanin, chloral cyanhydrin.)—White rhombic plates with color of hydrocyanic acid and chloral. Soluble in water, A., E. Fairly stable in solution. Decomposed by alkalis. 1.29 parts dissolved in nine parts distilled water equivalent to U. S. P. 2 per cent. hydrocyanic acid. 1 to 160 bitter almond water of Germ. Pharm. 646 parts hydrocyanate contain one part pure HCN.

C. MENTHOL.—Mixture of equal parts of chloral and menthol. Local disinfectant anesthetic.

CHLORALOSE. (Anhydro-gluchloral.)—Fine, bitter, colorless needles, soluble in A. E., warm water, slightly in cold water. Anesthetic, hypnotic. Dose, 3 to 12 grs.

CHLOROL.—Solution of chlorides of mercury and sodium, hydrochloric acid and cupric sulphate in water. Antiseptic. The cupric salt acts as an emetic if the mixture is swallowed.

CHLOROLIN.—Mixture containing mono and tri-chlorophenols. Disinfectant for urinals, etc. Also in two to three per cent. solutions in surgery and as mouthwash in 1-2 to one per cent.

CHLOROPHENOL. (Ortho-mono-chlorophenol.)—Formed by the action of chlorine on phenol. Antiseptic, volatile, liquid, inhalant in diseases of the respiratory organs chlorophenol 14, alcohol 4, eugenol 1, menthol 1. Inhale 16 to 30 drops daily. The vapors (heavier than air) penetrate to all parts of the lungs. Also applied to wounds, ulcers, etc.

CHLORYL.—A mixture of ethyl and methyl chlorides used for local anesthesia in minor surgery, dentistry, etc.

Chroatol.—Greenish yellow aromatic

CHROATOL.—Greenish yellow aromatic crystals insoluble in W., slightly in E., C., quite soluble in A., benzol and ecetic ether. Dermal application in psoriasis, alopecia, etc., in powder or ointment.

(To be Continued.)

Prescriptions.

BLEPHARITIS.

Millendorf recommends:

R.—Red oxide of mercury.....grs. x
Vaseline.....oz. ss.
M. Sig.: Apply to the edge of lid at bedtime.

Or,

R.—Ammoniated mercury.....grs. xx
Powdered camphor.....grs. x
Vaseline.....fl. oz. ss.

M. Sig.: Apply at night.

R.—Solution subacetate of lead.....gtts. x
Ointment of rose water.....dr. iij.

M. Sig.: To be used for chronic forms of marginal blepharitis.—Coll. and Clin. Rec.

CHORDEE.

R.—Ext. opii.....gr. j
Camphoræ.....gr. x
Ol. theobrom.....q. s.

M. et ft. suppository No. 1.

Sig.: Use at bedtime.—Ricord.

INCONTINENCE OF URINE.

R.—Sodii benzoatis.....gr. xx
Sodii salicylatis.....gr. xx
Fld. ext. belladonnæ.....gtt. ij
Aqueæ cinnamomi.....oz. iv

M. Sig.: A teaspoonful four or five times daily.—White.

RHEUMATISM.

R.—Veratrini.
Hydrarg. iodidi virid.....aa dr. j
Petrolati.....oz. j

M. Sig.: Apply over joints affected.
—Hare.

RHINITIS.

Cod liver oil, the hypophosphites, etc., will do more for the cure of rhinitis in scrofulous children than any simple local application.

FOR PULMONARY TUBERCULOSIS.

Take:

Calcium phosphate.....4 grs.
Menthol.....4 grs.
Sodium bicarbonate.....3 grs.
Powder of nux vomica..... $\frac{3}{4}$ gr.
Iron lactate..... $\frac{3}{4}$ gr.

To be taken four times a day with food.—Med. Chron.

ICHTHYOL.

This agent is recommended as a gargle in acute pharyngitis. In the treatment of acute coryza, good and speedy results may be obtained by spraying the nose with a mixture of one part of ichthyol and one hundred parts each of ether and alcohol. One application is said to be all that is necessary.

GONORRHEA.

A favorite prescription of Dr. J. William White's, for the second stage, is:

R.—Hydrarg. chlor. corros.....gr. 1-6
Acidi carbolic.....dr. iss
Zinci sulpho-carbolate.....gr. xxiv
Boro-glyceride (50 p. c. sol.) f. oz. ij
Aqueæ rosæ.....q. s. ad. f. oz. viij.

M. Sig.: Use as an injection after urinating.—Med. World.

ASTHMA.

R.—Ammon. brom.....dr. viij
Ammon. chlor.....dr. jss
Tinct. lobeliæ.....dr. j
Spir. æth. comp.....oz. j
Syr. acaciæ.....ad. oz. iv

M. Sig.: Dessertspoonful in water every hour or two during paroxysms.
—Pepper.

ASTHMA.

The following will be found most useful in this distressing complaint:

R.—Chloralis..... $\frac{1}{2}$ dr.
Potassi iodid..... $\frac{1}{2}$ dr.
Syr. aurant.....6 dr.
Aqueæ.....42 dr.

M. Sig.: Two or three tablespoonfuls a day.—Coll. and Clin. Record.

PLEURISY.

In effusion:

R.—Potass. acetatis.
Potass. bitartrat.
Potass. citratis.....aa dr. i
Dec. tritici repentis radicis.....oz. ss; oz. viii.

Sig.: A tablespoonful from four to six times a day.—H. J. Garrigues, M. D., London Med. Times.

BILIOUSNESS.

R.—Fellis bovini purif.....oz. j.
Magnesii sulph. exsiccet.....scr. ij
Resinæ podophylli.....gr. v.

M. et ft. pil. no. xx. Sig.: One pill three times a day.—Da Costa, in Dominion Medical Monthly.

CRACKED NIPPLES.

Exposure of the glands and nipples to the air tends to diminish their tendency to become sore and fissured. Daily ablutions with cold water are always essential. The following application may be used as a prophylactic when an astringent is desired:

R.—Tannin.....dr. i
Glycerinæ.....oz. ss.
Aqueæ rosæ.....oz. ss.

Sig.: Apply daily as directed.—C. D. Palmer (Norris' Textbook of Obstetrics).

For Physicians' Wives

EVAPORATED MILK

Evaporated milk for those on a milk diet who cannot take the required quantity. Heat the milk rapidly over a flame easily regulated. Diminish the heat before the boiling point is reached, stirring all the time, even after the flame is extinguished. Thirty centilitres can be reduced one-half in half an hour.

London Times and Hospital Gazette.

DIET FOR ALBUMINURIA.

Don't eat starchy foods at the expense of the albumins. Albumin must be supplied in a mild degree or serious trouble will arise. The kidneys will excrete albumin in spite of a non-albuminous diet.

Milk and whole wheat bread should form the bulk of the diet. Take also sub-acid fruits, as apples, bananas, figs and dates. Green vegetables, as spinach, celery, lettuce and occasionally a baked sweet or white potato. Boiled rice, macaroni and tomato sauce. Fish may occasionally be used. Avoid red meats and eggs.

Mrs. Rorer in Household News.

DIET FOR HABITUAL CONSTIPATION.

Give up all cereals and use hard, twice-baked whole wheat bread. Steamed figs once a day. Baked apples once a day. A salad for dinner every day. Brown bread made with Indian meal, coarse rye and whole wheat, with chopped raisins. Red meats such as mutton, beef and game.

Mrs. Rorer in Household News.

HINTS FOR THE HOUSEHOLD.

Transparent paper for copying drawings or needlework designs may easily be made by placing a sheet of paper over the drawing and rubbing it lightly with pure benzine. The tracing can then be made, and the benzine evaporating leaves the paper opaque as before.

* * *

Saturate the earth around house plants every day with the coffee left over from breakfast. It stimulates them. Plants that have a red or purple blossom will be rendered extremely brilliant in color by covering the earth in their pots with about half an inch of pulverized charcoal. A yellow flower will not be affected in any way by the use of charcoal.

* * *

There is a general opinion that few people, especially among the young, have enough sleep. A famous German physician says that every one up to the age of 21 should sleep for nine hours out of the twenty-four. In middle life people who can perform ordinary routine work when they are half awake may suffer no harm for a time with six hours' sleep, but all who use their brains should have at least eight hours.

* * *

Stains of rust may be removed from fine linen and similar fabrics without injury to the material. The articles must be first well soaped as if they were to be washed in the ordinary way. An iron is heated, and on this is laid a wet cloth. When the heat makes the cloth steam the rust stain is laid on it, and a little oxalic acid is rubbed on with the finger. The heat and the moisture hasten the effect of the acid on the rust, and

when this has disappeared the soaping and washing may be continued.

* * *

Excellent waterproof paper for packing may be made of old newspapers. A mixture is made of copal varnish, boiled linseed oil, and turpentine, in equal parts. It is painted on the paper with a flat varnish brush, and the sheets are laid one side until dry. This paper has been very successfully used for packing plants for sending long distances.

FOR FROST-BITTEN HANDS.

Bathe the hands in a decoction of walnut leaves, dry them and rub them with strong tincture of camphor; then dust them with the following powder: Bismuth salicylate, 150 grains; starch, 21.2 ounces. For allaying the itching at night, a mixture of 11.2 grains each of rosewater and tannin, and 11.4 ounces of glycerine should be rubbed on the hands, this is to be followed by the use of the powder. If the hands are ulcerated, they should be wrapped in walnut leaves, softened in hot water. Another remedy, the efficacy of which has often been witnessed, is 3 ounces of fir balsam and 15 drops of hydrochloric acid. This should be applied to the affected parts twice a day.

New York Medical Journal.

HOW WASTE OCCURS IN THE KITCHEN.

In cooking meats the water is thrown away without removing the grease, or the grease from the dripping pan is thrown away.

Scraps of meat are thrown away.

Cold potatoes are left to sour and spoil.

Dried fruits are not looked after and become wormy.

Vinegar and sauce are left standing in tin.

Apples are left to decay for want of sorting over.

The tea canister and coffee box are left open.

Bones of meat and the carcass of turkey are thrown away, when they could be used in making good soups.

Sugars, tea, coffee and rice are carelessly spilled in handling.

Soap is left to dissolve and waste in water.

Dish towels are used for dish cloths, napkins for dish towels, and towels for holders.

Brooms and mops are not hung up.

More coal is burned than necessary by not closing dampers when the fire is not used.

Lights are left burning when not in use.

Tin dishes are not properly cleaned and dried.

Good new brooms are used to scrub kitchen floors.

Silver spoons are used in scraping kettles.

Mustard is left to spoil in the cruse.

Vinegar is left to stand until the tin vessel becomes corroded and spoiled.

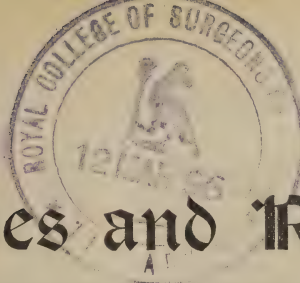
Pickles become spoiled by the leaking out or evaporation of the vinegar.

Pork spoils for want of salt, and beef because the brine needs scalding.

Cheese is allowed to mold or be nibbled by mice.

Woodenware is unscalded and left to warp and crack.

These may seem small leaks, but in the aggregate the loss is considerable.—The Chef.



The Times and Register.

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Original

THE TREATMENT OF THE NERVOUS FORM OF INFLUENZA.

BY DR. RICHARD DREWS.

Specialist for Diseases of Children, Hamburg.

The excellent effects of Salophen as an antirheumatic in acute muscular rheumatism and as an anti-neuralgic for the relief of the pains in the most diverse nervous affections (Cephalgia, migraine, trigeminal and intercostal neuralgia) have been demonstrated by Siebel, Guttmann, Frolich, Drasche, Flint, Caminer, Koch, Lutz, Gerhardt, Osswald, Koster, Rosenheim, De Buck and Vanderlinden, Waters, Lavrand, Claus, Brown, Woodbury and by myself. It was these observations which induced Claus, of Ghent, to employ Salophen against the various symptoms of the nervous form of influenza, as he was of the opinion that the neuralgias occurring in this disease are not primarily due to influenza, but depend upon a diathesis (arthritic): To combat this diathesis, Claus, during the great influenza epidemic of 1889-90, tried in turn, antipyrine, salicylate of sodium, salipyrine, salol, agathin (salicylmethylphenylhydrazine), phenacetine, exalgine, etc., most of which drugs exert an arthritic action through the sali-

cyclic acid molecule contained therein. In consideration of the cost he made especial use of Salophen and with good results—a fact which he attributed to the important part played by arthritis in the development of these neuralgic affections. After the introduction of Salophen (acetylparaamidophenol salicylic ester) a tasteless and odorless preparation which Claus designates as one of the most important acquisitions of modern therapeutics, he employed in place of salicylate of sodium this remedy, which contains 51 per cent. of salicylic acid and possesses antiseptic and antiarthritic properties. Claus administered salophen in 20 cases of influenza attended with the most diverse neuralgias—sciatica, intercostal neuralgias with herpes zoster, cephalgias, rhachialgias, etc., and obtained in all cases, without exception, a considerable improvement, almost immediately after the use of the drug. In the majority a cure occurred in two days.

Claus warmly recommends salophen in the nervous forms of influ-

enza, which, in his opinion, an antipyretic and antiarthritic par excellence not only on theoretical, but practical grounds, as it combines the specific effects of salicylic acid and the aniline bases without having their disagreeable after-effects and exerts, besides, a very distinct antiseptic action.

In the *Munchener Med. Wochenschrift*, No. 36, Dr. Arthur Hennig, in his "Contribution to the Symptology and Therapy of the Nervous Forms of Influenza," also recommended the employment of Salophen in the following words:

"Among the anti-neuralgics employed by me none has so reliable an action as Salophen, which for several years has been highly extolled by numerous authors, especially in the treatment of acute articular rheumatism. It has been positively demonstrated that this drug is separated into its components in the alkaline intestinal secretion, viz.: Into salicylate of sodium and acetyl paraamidophenol. Owing to this it has an advantage over the salicylate, which is dissolved in the acid gastric juice and produces more or less severe gastric disturbance after a time, while it is superior to Salol, which is also decomposed in the intestinal canal by reason of its complete freedom from taste and odor and its perfect innocuousness."

In accordance with the intensity and duration of the disease, the individuality and age, Hennig administered doses ranging from 1.0—5.0 gm. pro die, but often a few doses of 0.5 gm. every two hours or at shorter intervals sufficed to ameliorate or remove violent neuralgias or other nervous symptoms of influenza. In general, he recommends for children in doses of 0.25—0.5 gm. three to five times daily at intervals of two or three hours; for adults, the double dose. As soon as the disturbances subside the quantity should be reduced, but for several days after disappearance of all subjective symptoms the patients should take small doses several times daily, by which they seem to be often protected against severe sequela.

Hennig highly recommends Salo-

phen "in the protean group of symptoms of the nervous form of influenza, as it is completely devoid of any unpleasant or injurious after effects, and can be readily administered," and has also given favorable results in cases where a large array of other well-accredited analgesics had been exhibited without success."

This warm recommendation of Salophen in the nervous forms of influenza by Hennig had induced me to publish my own experience with the remedy in this type of the disease.

During the severe ravages of influenza in the winter of 1889-90 the form designated by Hennig as the respiratory predominated, while the nervous manifestations were in the background. In the more or less severe epidemics which have occurred almost every year since then the character of the disease has changed, so that more frequently than formerly cases are observed in which the nervous symptoms were more pronounced than the coexisting disorders of the respiratory and circulatory organs of the gastro-intestinal tract, as well as cases in which the nervous system, especially the peripheral, was also involved, the patients complaining chiefly of more or less marked nervous troubles.

These nervous phenomena consisted above all in an indefinite, dull headache, which some patients described "as if the head was being compressed," while others had a sensation "as if the hair was being torn out." There were also present feelings of dizziness and emptiness in the head, protracted severe prostration of the bodily and mental powers, which sometimes persisted for a number of weeks or months, and more or less marked sweating. Aside from these general symptoms rheumatic and rheumatoid pains were especially prominent; pains in the back, especially in the scapular and sacral regions, tearing and radiating pains in the chest and over the heart, in the muscles of the arms and legs, especially in the calves, which occasionally were extremely painful on pressure, and in rare instances even slight paresis of the arms and legs,

with diminution of the tendon reflexes, especially the patellar reflex. In the case of a strong, previously healthy man, there occurred frequently during the day very violent clonic spasms of all the muscles of the right side of the neck, without external signs, swelling or sensitive-ness to pressure.

In close connection with these symptoms were neuralgias in the course of certain nerves, and lancinating pains; neuralgias of the supra and infra-orbital, trigeminus, sciatic and the intercostal nerves, sometimes with herpes zoster. Further, I observed, especially in children and women, marked acceleration of the pulse (160 to 180 in a minute), without any elevation of temperature. This was accompanied by a pain in the cardiac region, producing oppression and a feeling of anxiety, although no lesion of the heart could be determined by percussion or auscultation, and are regarded by Henning as neurosis of the vagus nerve. I observed cutaneous eruptions in only a few cases in the form of erythema, resembling measles and scarlatina, which usually lasted but a few hours, and in two cases an extremely marked urticaria over the entire body. In three cases the patients who would otherwise not have come under treatment for influenza, were compelled to seek medical aid in consequence of a violent distressing pruritus of the extensor surfaces of the arms and legs, especially of the palms of the hands; and examination of the urine for sugar gave, however, a negative result.

Among the disturbances of the special senses I observed weakness of sight, photophobia, and in one case, diplopia; diminution of hearing, hyperaesthesia, shrill, discordant noises, or ringing, blowing, roaring sounds; diminution of the sense of taste, or a bitter sour perverse taste, diminution of the sense of touch and a feeling as if the hands had fallen asleep.

While in the respiratory and gastric form of influenza in the winter of 1889-90 antipyrine exerted so favorable an effect and acquired a

high reputation as a specific, it was found in the later cases of the nervous form that this drug acted less promptly and reliably. The similarity of the muscular pains of influenza to the tearing, lancinating pains of acute muscular rheumatism led me to the employment of salicylate of sodium, which had a really excellent effect upon the pains, especially in cases where gastric disturbances were absent or slight. In some instances, however, where besides the nervous symptoms of influenza decided disturbances of the gastro-intestinal tract existed, or where from previous use the patients had acquired a repugnance toward the salicylate, its action was not so favorable, the gastro-intestinal disorders were increased and there were manifested even after comparatively small doses the disagreeable symptoms of salicylic acid intoxication, which enhanced the nervous symptoms of influenza, so that the drug had to be discontinued.

For this reason I welcome with more than ordinary pleasure a new remedy prepared by the Farbenfabriken vorm. Friedr. Bayer & Co., which possesses the favorable effects of salicylic acid without its unpleasant properties, and which I soon learned to know as an excellent substitute for salicylate of sodium in acute articular and muscular rheumatism. The employment of Salophen in the nervous form of influenza has afforded me the utmost satisfaction, since its effect upon all the nervous manifestations has always been remarkably prompt and reliable, and in most instances more effective than salicylic acid or salicylate of sodium. This is probably to be explained on the ground that the salicylic acid separated from Salophen by the alkaline intestinal juice being in the nascent state acts more vigorously upon the toxins secreted by the supposed micro-organisms and circulating in the blood than salicylic acid introduced by the mouth.

In the nervous type of influenza, as well as in acute rheumatism, it is not necessary to give twice the dose of Salophen as salicylic acid, as might be theoretically assumed, but

the same doses suffice to produce an equally good or even better effect.

In the violent, sudden attacks of nervous influenza I administered to adults an initial dose of 2.0 gm. of Salophen and then continued in 1.0 gm. doses at two or three hours' intervals, in daily amounts of 5.0—6.0 gm.; while in cases where the symptoms were less intense and in feeble persons, especially women, doses of 0.5—0.75 gm. at two or three hours' intervals sufficed to rapidly alleviate the diverse neuralgic pains and to effect a complete cure in two or three days. I give doses of 0.3—0.5 gm., according to age, and total amounts of 4.0—5.0 gm. daily.

In not a single case were disagreeable symptoms observed after the employment in adults and children.

The influence of salophen upon the nervous phenomena of influenza is so favorable that I do not hesitate to regard this remedy as a specific in this form of the disease, just as antipyrine has been termed a specific in the respiratory form.

As special advantages of Salophen I consider its complete freedom from odor and taste, but above all its perfect innocuousness, which enables the physician to dispense it to poor patients by ordering it in knife-pointful doses instead of powders, by which the price is greatly reduced.

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VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYSIOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

When these studies on the blood were first undertaken by me, it was my intention to take up *seriatim*, and consider in detail, with considerable fullness, all its morphological elements, especially the corpuscles; but as my researches progressed the bibliographical and scientific sides of the subject were found to augment into such vast proportions that it

must occupy two or more years, in semi-weekly contributions, with the space allowance, to even imperfectly and briefly cover the ground. Besides, it was believed finally that a lengthy, technical and minute analysis would have little interest for the busy practitioner, and be of little practical value, except to teachers or those making a special study of

the circulation; it is, therefore, with a sense of reluctance that I have thus cut short the consideration of the corpuscles, after dwelling briefly on the leucocytes, and turn abruptly to a few practical features on the vitalizing current and the conduits which convey it to all the organs and structures in the body, with the hope that though, perhaps, little original may be offered, some features will be presented, which it is hoped, will revive our interest, and stimulate others to enter this practically unbroken ground, so lately opened to us, through the microscope.

VASCULAR MOBILITY AND SANGUINOUS STASIS.

Last year during a series of experiments, undertaken with a view, primarily, of elucidating the immediate effects of trauma succeeding a fracture of a bone-shaft on the circulation, in the limb beyond the seat of injury, my surprise was great when in some cases, when the limb was somewhat deliberately twisted on its axis, the force of the arterial impulse was not only diminished, but wholly lost.

In the dog and cat, this absence of pulsation in the larger trunks would continue for hours; in one case it remained over night.

In order to avoid error, immediately after the bone was shattered the main arterial trunk was denuded and exposed to view; when it was evident to inspection and direct digital compression that there was no blood moving through the vessel.

This incident struck me as most remarkable, when the query arose: can a part maintain its integrity and preserve its vitality for any considerable period of time, say, from three to forty-eight hours after its arterial supply is entirely cut off; or is absolute anemia or hematic stasis compatible with the life of a member of the body?

So far an endeavor had been made to answer this question by rough experiment; now, finer, more delicate and accurate tests were resorted to.

In the webbing of the frog's foot

we have a tissue, in which, at leisure, in the living animal, we may investigate all the movements of the blood-current and the various corpuscles.

It was my impression that, in the canine and feline, the blood, after damage of a large artery, in injury to the bone, made its way to the peripheral vessels, by collateral paths; but now that the blood-stream was under my immediate eye, that was proven to be an error; for in every instance after the femoral-shaft was forcibly disorganized by crushing or torsion the blood-flow in the digital capillaries, the venulae and arterioles was instantly stopped, and not a single corpuscle moved.

In the same areas after an hour or two, a slight sluggish movement was noticed; in others, after six hours, movement was restored in the larger capillaries, though slowly. In about one-half the so traumatized limbs, no motion could be discerned in any of the vessels, until the day following, at the same hour. In all, however, by the second day, thorough dilatation of the vessels was well marked, the movement of the blood had recommenced in all the vessels; in other words the circulation had been re-established.

A KNOWLEDGE OF THIS FACT AS APPLIED TO FRACTURE TREATMENT.

It had long been my conviction in the treatment of fractures of the bones of the extremities, that our modern methods of treating them in many important particulars were based on wrong principles, and if we would obviate or prevent gangrene, sloughs, muscular-atrophy, anchylosis, delayed union, or non-union, we must permit the vessels unfettered freedom.

*This topic it was my privilege to present lately before a large body of surgeons in a Western city; therefore, it will be needless to cover the same ground here.

* A Study of the Element of Vascular-Compression in Fracture-Treatment, as Based on Clinical and Experimental Data. By Thomas H. Manley, M. D. Mississippi Valley Med. Asso. Section Surgery October 12, 1895. G. A. Davis, Detroit, published in "Medicine."

It is enough to repeat that a limb, the seat of a serious fracture, is temporarily killed. Its animation is, for the time, suspended. The nerve influence is yet intact, for I have found that nerve tissue will endure the arrest of the circulation longer than any other; but the blood-flow has stopped or is seriously retarded.

Now, after a limb is fractured, quite regardless of the quality of the lesion, we hasten to make matters worse; we tug and drag on the muscles, encumber the limb by hard, resisting splints, and to add fresh dangers apply layer after layer of a firm muslin bandage; all because the people clamor for having "something done to have the bone set."

But, imagine the absurdity of having the bone "set," while its life-giving element, which it depends on for its nutrition and repair, is embarrassed and impeded in its movements, by mechanical appliances! No; the cardinal, underlying principle, which should guide us in fracture-treatment, is vascular re-establishment. This is secured by the adoption of rational measures.

Let us remember well, the anatomy of the muscles, which are the osseous levers; secure muscular relaxation, flex the limb, place it in a comfortable attitude; attending to it that such measures are provided as will favor the full return of the blood-current in the most distant, peripheral vessels. Splinting for adjustment purposes is indispensable after vascular restoration, but its employment must be governed by a judicious discrimination, or its consequences may be disastrous. Those who are specially interested in this phase of fracture-treatment would do well to peruse with care the late treatise of M. Lucas-Championiere*

My aim has been to show that the temporary stagnation of blood in a part is not incompatible with its ultimate re-establishment of function. This short digression in fracture has been to indicate the important role this feature of pathology alone plays in this common lesion.

Now, we may proceed to the concern of the circulation and its dis-

turbances, as it applies, under a great diversity of circumstances.

NEURAL ELEMENT IN VASCULAR STATIS.

It has been observed that the nerve is invulnerable in a remarkable degree.

A case of fracture of the femur came under my care last year, in which the limb was killed outright and permanently. The forward wheel of a truck had passed over a man's thigh—right. He was at once admitted to the hospital. The limb was stone cold and numb up to the point of fracture, over all those areas supplied by the great sciatic nerve, though in the inner and upper part of the thigh, those parts vitalized by the obturator and anterior crural, preserved normal sensation. Medulated nerves do not decussate, and, therefore, when a main trunk suffers annihilation or damage, there is not the same loop-hole of escape, provided by the anastomosing of arteries. From the symptoms we suspected serious disorganization of the principal nerve trunk, as well as the femoral artery. Mortification in the limb set in early, and on the third day it was amputated.

Now, it was found that the great sciatic nerve had been caught by the sharp edge of the upper pigment and nearly torn in two.

VASCULAR STASIS IN DISLOCATION.

In subglenoid dislocations it is quite impossible to conceive how the axillary-artery can escape damage; and it probably does not, but the collateral vessels are equal to the emergency, and the circulation seldom suffers serious damage.

But, when the brunt of force falls on the brachial-plexus of nerves, in these dislocations the consequences may be very grave.

Professor Fred S. Dennis, of New York, some time ago exhibited such a case in a boy. The arm, cold and wasted, hung by his side powerless and helpless, the head of the humerus rolling out of its socket as often as it was returned. Amputation had to be performed later.

We may witness many instances

(*Traitemente Des Trac. Des Os.)

of complete anemia or stasis in a part, with full recovery of vitality or restoration of function. It is important though, when we wish to artificially induce it, that certain conditions are observed:

ARTIFICIAL STASIS.

1. It should be induced gradually.
2. Care must be observed that no damage is inflicted on the vessels.
3. It must not be too protracted.
4. Accessory aids to circulatory restoration.

(To be Continued.)

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number)

CHAPTER V.

(Continued),

A—LOCAL TROUBLES.

The local troubles occasioned by masturbation are numerous. Some are benign, while others are of a certain gravity.

1. Benign.—Here, let me mention flaccidity and discoloration of the genital mucosa; excoriations of the vulva, clitoris or introitus vaginae; erythema of these organs, that first degree of inflammation whose sequelae are congestion and pruritus.

Next come rupture of the hymen, a lesion of but slight importance per se, but which may cause much unhappiness if the patient marry; erythema and sometimes eczema of the upper-inner part of the thighs; idiopathic leucorrhea caused by a local or general disturbance of the innervation of the genital muciparous glands.

Vulvitis and abscesses of the labia majora caused by it are not uncommon. Vaginitis, caused by the direct irritant action of a foreign body, is often seen, as is also hypersecretion of the vulvo-vaginal glands.

The genesis of this is easily understood if we consider that the onaniste, seeking but one thing—pleasure—endeavors to prolong it as much as possible by frequent pauses in her practices, something that is particularly favorable to hypersecretion of Bartolin's glands; phleg-

monous inflammation and abscesses of these glands, followed by fistulae, develop often after an intense vulvitis or under the direct action of masturbation.

Finally, chronic vulvitis or vaginitis, with their principal symptom—leucorrhea.

These troubles are so frequent that Deslandes affirms that out of twenty cases of leucorrhea or of vulvar or vaginal inflammation fifteen to eighteen were caused by masturbation.

We must here call particular attention to the genital discharge of little girls, on the nature of which we should be well informed for medico-legal reasons. This discharge has often caused a suspicion and accusation of rape. I will quote in this connection some extracts from the report of an expert concerning a complaint of this kind preferred against an innocent man. We shall find at the same time a true picture of the disorders that onanism causes in the external generative organs of children.

Mr. B—— informed us that on the 9th inst. at 7 o'clock in the morning his daughter Louise, aged 14, who had been left alone in the house, had been violently thrown upon the bed by his neighbor, Mr. E——, and abused.

Louise B——, questioned by us, replied with much hesitation, but finally confirmed her father's statement.

Examination of the little girl: Louise B—, not yet nubile, is of small size, delicate constitution and extremely lymphatic; complexion pale, and livid circles around the eyes.

I. The sexual organs are well developed, but already withered and discolored; the labia majora, very thick and flaccid, are separated at their lower angle.

II. The vulva showed a much enlarged, funnel-shaped entrance, at the bottom of which was the hymen, much stretched but still unruptured. This membrane formed a kind of ring around the gaping vaginal orifice, whose dimensions were such that it admitted the forefinger easily; the fourchette was depressed, but not torn.

III. There was no excoriation of these parts. * * * But they were moistened by a discharge that seemed to us of leucorrheal nature.

Conclusions: It is evident that Louise B— had not been raped. * * * But the withering of the organs, the infundibuliform arrangement of the vulva, the depression and malformation of the hymen, the dilation of the vaginal orifice, prove a habit of masturbation of ancient date and, doubtless, the introduction of a more or less voluminous body into the vagina. The discharge from the sexual organs can not come from a rape three days previous; it has existed for a long while; it is leucorrhea caused by onanism.*

(Microscopic examination of the stains on the chemise of the girl confirmed the truth of the preceding report.)

2d.. The troubles caused by onanism mentioned thus far are of but slight importance compared with the following, the gravity of which is only too evident.

Let us mention, first of all, acute metritis.

Acute uterine inflammation is a not uncommon consequence of habitual masturbation, especially when the latter is practiced just before, during and immediately after menstruation.

"Besides, the physiological act, coitus, as a cause of endometritis," said A. Guerin in one of his clinical lectures, "we must mention a second, onanism. This is a common cause of inflammation and one to which attention has not been sufficiently called; it is a true mental disease, common to both sexes.

"Scanzoni tells us that this vice is so common in all the German boarding schools that the exceptions may be counted on the fingers.

"In boys it leads to the scrofulous and tubercular diatheses; in young girls it causes leucorrhea, anaemia and chlorosis.

"Vulvar pruritus is often the point of departure; some women give themselves up to masturbation with frenzy, suffer from it and become very unhappy.

"A young lady 27 or 28 years of age came one day to consult me for incipient nymphomania that was ruining her health. We tried all the anaphrodisiacs; camphor, lupulin, bromides, digitalis, etc., but without success.

"The torments of this unhappy girl were so great that she begged me to destroy the organ of sexual excitement. I consented and cauterized it, and for a fortnight she seemed cured; but when cicatrization was complete it became evident that this method of cure, like all preceding ones, had failed. * * *

"When we consider the vascularity of the pelvic organs and their intimate connection it is easy to understand how any excitement, often repeated, of one point of the female genital apparatus reacts upon all the organs that compose it."

Parenchymatous metritis or chronic inflammatory engorgement of the uterine tissue may have masturbation for an efficient and active etiological factor, since repeated onanistic maneuvers cause an almost chronic congestion of the body and neck of the uterus.

Relaxation, prolapse and inversion of the vagina have been seen in onanistes.

Relaxation of the uterine ligaments often causes displacements and deviations of the womb and the dif-

*J. Briart et E. Charde, Manuel complete de medicine legale, pp 770-771.

ferent concomitant pathological phenomena.

Deslandes reports the case of a lady who, having commenced to masturbate at the age of 11 years, was afflicted with abundant leucorrheal discharges; married at the age of 18, and, although legitimate enjoyment was not wanting, she continued her solitary practices in spite of several pregnancies. Her uterine trouble increased and was soon complicated with a prolapsus uteri, in which the uterine neck came down to the mouth of the vagina. (1)

Cullerier, in his "Dictionnaire des Sciences Medicales," says in so many words that uterine diseases are only too often the sad and cruel result of solitary maneuvers. (2)

Fabre, in his "Traite des Maladies Veneriennes," makes the following statement:

"I have seen vaginal discharges that have misled me as to their origin and caused me to think that they were of gonorrhoeal nature. I was one day called to a lady, 18 years of age, who, six months after marriage, felt pain in her vagina and had an abundant greenish discharge."

Fabre's first thought was that she was suffering from a venereal affection and ordered treatment accordingly.

"Nevertheless, the trouble increased instead of diminishing. I now examined the patient thoroughly and found that the neck of the womb was down to the ostium vaginae. Questioning this lady as to what could possibly have caused such a relaxation of the uterine ligaments at her age, she acknowledged that her husband often excited her to pleasure with his fingers, and that the friction he exercised during the operation was so powerful that her chemise was often stained with blood. I then saw that I had been mistaken as to the character of her trouble, for I considered that the descent of the womb was caused by the masturbation, that was likewise responsible for the pain and the discharge."

I shall quote a second observation by the same author:

"A young woman, five years married and without children, had an abundant, greenish, vaginal discharge; she had grown quite thin, complained of terrific headaches and pain in her chest and stomach, and her hair had almost all fallen out."

Fabre thought that this case was a virulent affection, treated it accordingly and had no amelioration of symptoms.

"Finally, the patient, seeing that the remedies produced no result, confessed that she had, when 14 years of age, been taught masturbation by a chambermaid; that she had given herself up to it with such fervor that since her marriage the approach of her husband had been indifferent to her, while when in company she would sometimes be obliged to leave the room and satisfy her passions."

Onanistes are subject to metrorrhagia (1). These sanguine losses are explained in various ways. Sometimes they follow a congestion due to maneuvers repeated in quick succession; sometimes they are symptomatic of a want of plasticity of the blood, of anaemia; sometimes they are the sign of chronic endometritis, and, finally, much more often than we imagine, in adults, they accompany the expulsion of the germ—that is, to say, embryonic abortion.

Cancer of the womb, according to some authors, of whom I will cite Descuret, may be caused by onanism. I do not know how much truth there is in this statement, but it seems possible that this malady may have its development influenced by the congestion caused by frequent masturbation.

Enuresis nocturna is often caused by nervous atony and local weakness caused by masturbation. Girardeau says: "I have often been consulted for incontinence of urine in young girls where masturbation was the whole cause of the trouble."

Circumscribed or general traumatic peritonitis has been caused more than once by perforation of the va-

(1) Loc. cit. pp 350-351.

(2) Vol. XIX, p 5.

(1) Journal de Medecine et de Chirurgie pratiques, Vol. XXVII, p 77.

gina by some instrument used for masturbation that has penetrated into the abdomen.

A woman, 28 years old, troubled, she said, by a difficulty in urinating, tried to pass a cedar pencil into the uretha. While doing this she was surprised by some one and the pencil slipped from her hands. A few moments later upon sitting down she felt a sharp pain in the left side of her abdomen, as if a foreign body had penetrated this region, and although a physician was called immediately he could find no trace of any wound. Frequent attacks of peritonitis followed, and eight months later the pencil was removed. The autopsy showed that the pencil had penetrated the abdomen, passing through both anterior and posterior walls of the vagina. (I)

Vaginal abscesses are caused by wounds or by the retention in the vagina of foreign bodies that may produce inflammation and perforation.

Some years since a peasant girl entered the hospital with a diffused swelling of the abdomen. Later on an abscess formed, opened and its long-continued suppuration carried off the patient.

The autopsy showed perforation of the vagina and the presence of a glass decanter stopper in the pelvis.

The physician in charge had forgotten to practice vaginal touch.

Cystitis and nephritis, according to Descuret, may be caused by masturbation.

Urinary calculi, vesico-vaginal fistulae and the consequences of these morbid conditions are far from rare occurrence in onanistes. Many unfortunate women have seen with shame and astonishment the most diverse instruments that they were using for erotic purposes slip from their fingers and enter the bladder to become the origin of all kinds of disorders.

Examples of this are only too numerous. Moreau, chief surgeon of the Hotel Dieu, says that he once extracted from a woman's bladder a crab apple encrusted with calcarious matter.

Benevoli reports the case of a young girl who introduced a wooden

needle case into the bladder through the uretha. It was extracted three months later and the patient got well (1).

A young girl, 16 years of age, was rubbing the meatus urinarius with the head of a long hair pin; having introduced it into the uretha it escaped into the bladder. * * * Some months later this unfortunate girl confessed the origin of her troubles. Sounding showed the presence of a stone in the bladder. This calculus was the size of a hen's egg and was crushed and extracted only after long and painful efforts. The pin, three inches long and incrustated with lime salts, was removed at the same time. The patient got well (2).

Foreign bodies introduced into the vagina by onanistes may cause severe or even mortal disorders. We have already mentioned in the course of this work the foreign bodies most generally used for vaginal masturbation and will now mention a few cases of more than ordinary interest.

A girl consulted a physician for a terrible pain in the genitals.

Digital examination revealed the presence of a hard, inert body at the upper part of the vagina; the mucous membrane was so swollen that it seemed to forcibly hold this unknown substance in its grasp.

Much care and more than one attempt was necessary to seize and remove what turned out to be—a champagne cork.

In spite of the denials of the patient, it was evident that the accident had happened while she was using the neck of a bottle to calm her passions (I).

Lisfranc reports a case of removal of a jelly glass from the vagina (II).

Dr. Janssens, of Ostende, had for a patient a woman who had used a beer glass for a phallus (III).

(2) Benevoli, *Dissertat et Observat.* Vol. XXII, p 204.

(2) *Journal de Medecine de Paris*, Vol. XL, p 229.

(1) Fournier et Beguin, *Dictionnaire*, Vol. XXXI, pp. 107-8.

(II) *Clinique chirurgicale de la Pitie*, Vol. II.

(III) *Journal de Medicine et de Chirurgie*, 1850.

Lisfranc loc. cit.) has the following:

"A woman was masturbating when unwell and broke a willow twig in the uterus. There were no symptoms.

"The uterus was doubtless accustomed to the contact of foreign bodies, but at the next menstrual epoch violent pains came on, which resembled those of child-birth; the womb had increased in volume.

"The external os seemed firm, the cervix was hypertrophied, as in the third month of pregnancy; at the lower extremity I felt a very slight projection that offered a great resistance. Examination with the speculum showed the foreign body that was removed with difficulty. Its displacement was followed by a discharge of thick black blood that had collected in the uterus. This organ immediately contracted to its normal size and all untoward symptoms ceased."

Syphilis may be transmitted by mutual onanism. This mode of propagation has been noticed in "special" hospitals, among others at Lourcine or Becquerel, where women exempt from this disease caught it through mutual masturbation with syphilitic companions.

To close this long list of local troubles I will add that sterility and abortions are very common in onanistes, because of the nervous shocks and afflux of blood to the uterus.

Finally, without speaking of the genital vice that they inherit, the children of onanistes are born weak, puny, die young or become neuropathic, rachitic, scrofulous, tuberculous, idiots or epileptics.

B. GENERAL TROUBLES.

Before commencing the enumeration of the general diseases which are caused either directly or indirectly by onanism, I wish to make a statement that will, I hope, guard me from being accused of exaggeration.

I do not intend to affirm that any or all of the affections I have already mentioned or have yet to mention must, necessarily, be the lot of every onaniste. Some by reason of age, temperament and lack of frequency

of these maneuvers may remain immune, while others may have one or several of the diseases mentioned in this chapter.

If the list seems long, do not accuse me of exaggeration. I have merely grouped the facts I have found in the writings of different authors, leaving out much that seemed irrelevant to the subject.

Nervous affections and troubles of the intellectual and moral faculties caused by masturbation are so numerous as to need to be mentioned only, without the addition of long commentaries; their genital pathogenesis is, however, very clear:

Epilepsy.—Many authors hold that in women this disease is intimately connected with uterine disorders hence the names "*Epilepsia uterina*" (Sennert) and of "*Epilepsia ab utero*" (Johnson), genital epilepsy, as it was formerly called. If this be the truth it is very easy to see how any excess of coitus or of masturbation may in time produce this morbid manifestation.

On the other hand, an epileptic attack aside from its duration has a great analogy with the venereal spasm; so much so that the ancients called it "*Epilepsia brevis*."

Finally, experience does not allow a doubt upon the influence of the genitals on the genesis of this sad infirmity.

It is a well-known fact that idiots, even if not epileptic, become so almost invariably. Is not masturbation the cause?

Hysteria.—The feminine trouble par excellence, hysteria, so common in girls and women, is said to have its point of origin in the uterus and its annexes by Tissot, Dubois d'Amiens, Landouzy, Brierre de Boismont, Morel, Wiegner and Schutzenberger, etc.

S. believes with Romberg that hysteria is a reflex spasm produced by uterine excitation; other authors see in this disease only an idiopathic nervous affection. Such are Georget, Bouilland, Forget, etc.

Because of the appearance of hys-

(1) E. Landais, De l'influence du mariage et de la grossesse sur les maladies, p. 6.

teria subsequent to onanistic practices, I am inclined to favor the former theory.

I do not consider onanism as the only cause of hysteria, but as one of the principal ones. Almost every hysterical woman will, if deftly questioned, admit that the first painful or convulsive manifestations came on after masturbation.

Hysteria is more common in young girls, widows and old maids than in married women. Is not masturbation also?

Catalepsy, ecstasy, infantile eclampsia, nervousness, chorea, encephalitis, softening of the brain, meningitis and, finally, paralysis may have their origin in onanistic practices.

The senses are not infrequently deranged in confirmed onanistes. Hearing is less acute, touch is less delicate, taste and smell are blunted, but the most important changes are those found in the organ of vision; asthenopia going on to amaurosis without the ophthalmoscope being able to discover any lesion to explain the loss of sight.

The intermittent mydriasis of the first stages of masturbation may become permanent.

The intellectual faculties.—It is easy to see how these become blunted through masturbation.

In children the most noticeable thing in the arrest in the development of the mental faculties, a state of things contrasting sharply with the former dispositions of the patient.

Onanism throws its victim into a kind of hebetude or even imbecility, through which a flash of intelli-

gence occasionally appears, but even this will soon vanish, leaving idiocy as permanent master of this human brain.

In people more advanced in life other mental diseases develop which hardly yield to the palm to idiocy; melancholia, hypochondria, lypemania, monomanias of different kinds, as homicidal, erotic, suicidal, etc., and terminating occasionally with dementia or general paralysis.

While the tastes, habits and character of our patients are changing, a skilled observer may easily notice a progressive weakening of the mental faculties. Slowness of thought, poor memory, even for important things; inco-ordination of ideas. All the sentiments are blunted, the instincts, even that of self-preservation, are perverted, lessened and annihilated. Such is dementia.

To a voracious appetite, common in the beginning of the affection, succeeds anorexia, the muscles become flaccid, the skin discolored and wrinkles, the eyes lose their brilliancy and become dull, and intellectual decadence complicates physical decrepitude.

General paralysis that so often complicates dementia may precede it or develop independently. It is characterized by progressive enfeeblement of the power of movement and stands in the same relation to it that dementia does to the power of intellection.

To this list of chronic diseases we must add one more: Imbecility, which may be considered as chronic dementia.

(To be continued.)





Editorial

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THE THEORY OF PROFESSOR ROENTGEN.

It is the opinion of Professor Roentgen that there is some sort of relationship between the new X-rays and the ordinary light rays, since both cast shadows, produce fluorescence and exert chemical action. Roentgen's rays are not identical though they are associated with the cathode rays of Crookes. He has observed that in the passage through the air a smaller proportion of the X-rays than of cathode rays are absorbed.

Again, the direction of the latter can be changed by a magnet while the course of the former cannot. He believes, however, that the origin of the "X-rays," as he terms them, is at that portion of the walls of the tube where the cathode rays produce the most brilliant phosphorescence. Now, with a magnet, one can turn the cathode rays so that they will impinge on a different spot, and the X-rays will thus be generated in a new place. But wherever developed the latter proceed thereafter in a straight line, unaffected by a magnet.

The Professor believes that it is unnecessary to have the walls of the vacuum tube entirely of glass. The impact of the cathode rays on an aluminium plate or window at the end of the tube would be equally efficacious, in his opinion, in producing the newly found radiance.

Ultra violet rays can (1) be turned from their course if passed from air into water, or through carbon disulphide, aluminium, rock salt and some other substances; (2) they can be reflected at the surface of the bodies named; (3) they are subject to the laws of "polarization," and (4) their absorption by bodies through which they pass depends on the density of the latter. Elaborate experiments by Roentgen himself show that the X-rays behave in none of these ways.

It has long been known that aside from the transverse vibrations of light rays in ether, longitudinal vibrations are possible and, according to many physicists, they must occur; their existence, however, has not as yet been proven and consequently their properties have not been experimentally investigated.

While not as yet prepared to positively assert that the new rays have a longitudinal vibration, Professor Roentgen states that during the course of his investigation he is more and more inclined to accept this theory as the correct explanation of the phenomena observed, "but the hypothesis advanced still requires a more solid foundation."

The newly discovered rays seem to have the faculty of penetrating all bodies, though with a marked dif-

ference in the time and presumably in the strength of the rays required for penetrating different substances.

In none of the substances so far examined by Roentgen has there been shown any appreciable refraction or reflection of the rays, although the substances which are not completely permeable by these rays give a kind of diffuse reflection, such as is shown to light by a strong smoke or a heavy fog.

Edison is endeavoring to get a shadowgraph of the human brain and is also particularly interested over the possibility of using the X-rays to combat disease germs. When he gets his apparatus in perfect working order, he will experiment on cultures. A peculiar phenome-

non observed in experimenting with the cathode rays is the effect they have upon aluminium. The electrodes, that is the cathode and anode in the tubes, are made of aluminium discs, one inch in diameter and one sixty-fourth in thickness. Before they had been used in the tube they were easily bent. After several of them had been used recently, Mr. Edison happened to try to bend one. He found that it resisted all but the most violent effort. Then he tried one after the other, and in each he observed the same inflexibility. This has never been observed before by any scientist, Mr. Edison says. He attributes it to the effect of high heat and the current passing through the metal.

A CAUSE OF PUERPERAL FEVER.

Dr. William E. Ground, of Superior, Wis., in the Transactions of the Medical Society of that State, criticises, among other things, the conditions surrounding the women of the middle and lower classes. He states that the husband, as a factor in the production of puerperal sepsis, has not received the consideration he deserves. He often initiates the septic process in his wife soon after marriage by inoculating her with the gonococcus, and when she is near the end of pregnancy he comes home with a soft chancre, and continues his septic and sexual relations with her. Most men touch their penis several times a day while urinating, and yet probably few of them ever think of washing it, no matter how dirty their occupations, before thrusting it into the parturient canal at night. Men sometimes have sexual relations with their wives within a week or two after confinement; the woman develops symptoms of puerperal fever, and the doctor is puzzled to explain the cause, and perhaps lays it to the breasts, or

catching cold, or to auto-infection.

The patient does not have many opportunities for infecting herself, but the methods she employs are calculated to be very successful. Most women think any old rags are good enough to receive the lochial discharge, and they must be prohibited from doing. She must also be discouraged from using the family sponge to bathe herself with. The surgeon would do well if he ordered all wash rags and sponges used for such purposes burned before labor begins, for they will turn up unexpectedly a dozen times during the confinement unless they are entirely out of reach. Only recently he had prepared a parturient woman in a thoroughly aseptic manner, when she found it necessary to visit the closet and while there the waters broke and began dribbling away, when she promptly applied the bath room sponge to the vulva, where he found it an hour later. These may seem to be little things, but if we expect to do aseptic surgery and get desirable results we must be eternally vigilant.

CORNELIUS G. COMEGYS, M. D.

Dr. Cornelius G. Comegys, one of Cincinnati's prominent physicians, died February 10.

Dr. Comegys was born in Cherboung, Kent County, Delaware, July 23, 1816, and was educated at Dover Academy, Delaware. After embarking unsuccessfully in business in Indiana, he began the study of medicine, and received his diploma from the University of Pennsylvania in 1848. He went to Cincinnati the following year, and in 1851 studied in London and Paris. He became professor of anatomy in the Cincinnati College of Medicine in 1852, but resigned to accept the chair of the institutes of medicine in the new Miami Medical College at Oxford, O.

This was united with the Medical College of Ohio in 1857, and Dr. Comegys retained his chair till 1868, with the exception of the years 1860-4. In 1857 he became lecturer on clinical medicine in the Cincinnati Hospital, where he has introduced important improvements.

Dr. Comegys delivered an address before the Alumni Association of the

University of Pennsylvania in 1875, in which he maintained that a healthy brain was necessary to a free will. He was in favor of reform in medical teaching, holding that instruction in hospital wards should be given to advanced students, and that instruction given to large classes by means of lectures was inadequate.

For many years Dr. Comegys was a director of the Board of Education, was active in developing the Cincinnati Public Library, secured the organization of the University of Cincinnati in 1869, and was one of the founders of the Cincinnati Academy of Medicine and its president. Dr. Comegys claims to have been the first to announce the correct theory of counter-irritation.

Of his numerous medical papers, two have attracted much attention, that on "The Pathology and Treatment of Phthisis," and that on "Cool Bathing in the Treatment of Enterocolitis." He also translated from the French Renouard's "History of Medicine."

ANNOUNCEMENT.

The next issue of this journal will contain important papers on the Poisonous Effects of Illuminating Gas, by Boston physicians, one of whom is a Medical Examiner. As this subject

is one that is rarely treated, outside the text-books, in medical literature, we believe that the general practitioner will find these papers of great interest and value.—[Ed.]





A PRACTICAL METHOD OF MEASURING AND REGISTERING THE TRUE THERAPEUTIC DOSE OF INDUCTION-COIL CURRENTS.

By S. H. Monell, M. D., 865 Union St., Brooklyn, N. Y.

(Continued from Last Number.)

Before describing further the details of my method, it is proper to cite the authority for the electrical measurements which constitute the scientific basis of accuracy claimed by me above:

"New York, Dec. 17, 1894.

"Dr. S. H. Monell.—Dear Sir: I return herewith the two tubes containing liquid resistances which you submitted to me. I have calibrated each tube and provided it with a scale which shows its electrical resistance in ohms for every position of the movable electrode. My opinion in regard to these devices is as follows: 1. A liquid resistance is a very simple and convenient means of obtaining very high resistance for medical use. 2. By changing the liquid the range of resistance may be varied from several megohms to a fraction of an ohm. 3. The screw adjustment of the electrode enables the resistance to be gradually varied to any value, without the sudden shock which occurs when resistance coils are cut out. 4. The resistance is non-inductive, hence there is no reaction against or distortion of the current, which is very important in connection with induction (faradic) coils. 5. A short circuit cannot occur, the electrodes being arranged

so that it is impossible for them to come in contact, whereas there is serious danger of short circuit in resistance coils with high tension currents. 6. The resistance is practically definite and constant, provided the temperature remains nearly the same. With the small currents ordinarily used the heating effect is small, but if necessary the temperature can be tested by a small thermometer and kept constant or allowed for. 7. The effects of polarization and electrolysis are insignificant, since the potential is high and the current is alternating in the case of induction-coils, with which these resistances are to be used. 8. The liquid does not appear to be affected by the action, or to change in any way, but it is of course impossible without actual trial to tell what effect might occur in a long period of time. Any difficulty of this kind might be overcome by renewing the liquid occasionally.

"Yours truly,

"F. B. CROCKER,

"Professor of Electrical Engineering,
Columbia College."

While therefore the once proposed scale of fractions of inches was a purely fictitious and ridiculous trav-

esty upon scientific dose-measurement, the author's method is a comparative record of the current strength and not a mere fragment of a tailor's yard-stick. As such a resistance register and rheostat is of general applicability, and may be placed by all instrument-makers upon high-grade batteries and properly standardized for clinical use, it may be fairly claimed that the general adoption of my method would supply the long-expressed need for precision in faradic dose records.

To illustrate the method let us hold, for example, two ordinary electrodes in the hands, select for our coil one thousand five hundred yards of No. 36 wire, and employ very slow interruptions of, say, seventy per minute. We raise the rod in tube 1 to its full height and switch four cells into circuit. Gradually lowering the contact rod, we note the point where the current becomes first perceptible to sensation. It is at 700,000 ohms resistance on the scale. Taking this as our zero unit, we continue to lower the rod until muscular contractions are produced as strong as we desire. The rheostat now indicates but 100,000 ohms, showing that 600,000 ohms of resistance have been removed from the passage of the current into our arm muscles, which feel and respond to the force previously expended within the rheostat. If now I record the facts: Coil, 1500 yards of No. 36 wire. Interruptions, 70. E. M. F., four cells. Dose, 600,000 ohms, small sponge electrodes in hands, positive in right; I can repeat the exact application and muscular effect whenever and as often as wished, even should the cells deteriorate by use so as to require five or six cells to equal the energy recorded. There is no parallel to this precision of record to be found in the literature of faradic electricity. The method allows for all possible variations in treatment.

Again, using a short, coarse coil, one hundred and fifty-four yards of No. 21 wire, for instance, we obtain sensation with a given contact at 36,000 ohms resistance of tube 2; and full tolerance is reached when but

4000 ohms remain. The given dose is therefore the electrical energy represented in overcoming 32,000 ohms of resistance with the current quantity value indicated by the capacity of the wire in the induction-coil. It is not essential to know the galvanic amperage of different sizes of wire with a corresponding voltage, for we are not dealing with galvanic but with induced currents, in which volume is subordinate to potential and kinetic energy; and our different coils—long, medium, short, fine and coarse—take on a definite individual identity under habitual use which serves the expert as a practical expression of their quantity values. Our second record reads with electrodes same as before, but a more rapid rate: Coil, 154 yards No. 21; frequency, 300; cells, two; dose, 32,000 ohms.

In the last case the lower voltage is seen to be commensurate with the greater volume conducted by the coarse wire, while the previous high voltage of the long fine-wire current was proportioned to the extremely diminished volume induced through it.

In making a vaginal bipolar application with a very rapidly interrupted high-tension sedative current, we use tube 2, with its low resistance, owing to the enormous tolerance of the tissues treated.

An illustrative clinical record reads as follows: Vag. bipolar sedation, coil, 1500, No. 36. Rapid vibrator, E. M. F., 4 cells. Dose, 45,000 ohms, twenty minutes, daily.

If this seems to express a small dose (an inadequate estimate of the great tolerance of the pelvic tissues), it must be remembered that it is the difference between zero sensation and the maximum current strength administered with electrodes applied in actual treatment, which is recorded as the dose, and not the difference between the sensitive nerve-filaments of the hand and tissues whose dullness of sensation and low resistance to current diffusion permits them to accept with comfort and benefit an application which would be painful on the surface of the skin. If the

dose was reckoned from a zero obtained in one arbitrary manner, say, by touching the electrodes with the finger or thumb before applying them to the patient, it would bear no genuine relation to the dosage of larger contact areas, of different varieties of electrodes and different parts of the body.

To be a scientific and universal method it must answer for all conditions of treatment, and my method does this perfectly. The use of a single cell, or of any number up to six (the battery contains six cells), will determine the zero at a higher or lower point on the scale, and the same cells, as they deteriorate, in time will alter their E. M. F.; but these variations do not alter the accuracy of my dose record, which is the difference between the minimum and maximum rheostat readings independent of the number of cells it takes to furnish the given inductive force.

The difference, also, in power to penetrate tissue resistance will create a different zero point for each length and size of wire, even with the same E. M. F. inducing force and same electrodes; but with standard coils, a standard method of finding the actual zero point in all cases, with any coil, with any number of the battery cells at any period of their life, my method furnishes a flexible, permanent, and accurate measurement of the true therapeutic dose. Its adaptability to varying conditions of current volume, voltage, resistance and density removes all sources of error.

This method, carried out in its fullest detail, is particularly applicable to the records of clinicians and other observers whose investigations require an exact comparison of results. In general practice the physician will soon familiarize himself, at least approximately, with the position of the rheostat for various zero readings, just as the skilled book-keeper soon remembers the ledger pages of his accounts; so that actual tests for zero will be unnecessary except, perhaps, in the first treatment of a new case. If the full dose record

is considered superfluous for the physician's own records in his ordinary office work, a modification will furnish satisfactory notes for personal reference. In using the modified method which I suggest, we need not repeatedly calculate the actual dose administered, but simply note the conditions under which the maximum current was applied by recording the lowest reading of the scale. For example: Coil, 1000, No. 36. Rapid V.; cells 5; scale 6000; tube 2; vag. bipolar, 20 minutes. There is no expert electro-therapist equipped with similar apparatus who, on reading this record, could not instantly apply the same treatment with the same dose, though he were a thousand miles away. The use of initials for full words will, of course, abbreviate the record in our private case-books and be equally intelligible to our understanding.

My resistance scales, therefore, clearly supply to induced currents a dose indicator as practical in their case as the milliammeter is in the case of direct currents, and complete the hitherto imperfect record of faradic administrations. Of the other factors requiring report for purposes of uniformity in clinical observations, the character of the electrodes can always be identified by sizes, numbers, or names, as in makers' catalogues. Quantity and quality, the elements of induced currents subordinate to their energy and pressure force, are, as we have seen, sufficiently expressed by reference to the particular coil employed. A more exact description will hardly be required by experts in electro-therapy. As the trained electrician becomes accustomed to the quantitative and qualitative differences in effect between every coil in his apparatus, whether 500, 1000, or 1500 yards of No. 36 wire, or 800 or 500 yards of No. 32 wire, down to shorter coils of No. 21 or 18 size, he accurately knows the characteristics of currents from them all, and utilizes their diverse properties with intelligence and precision.

It would add no therapeutic value to his knowledge if the current volume, per wire, was noted by a meter

in terms of amperage, or the E. M. F. in volts.

There now remains but one factor of dosage still surrounded by vagueness and lack of precision in theory, although clearly defined enough for practical purposes. This relates to the record of the rate of current interruption, a very important part of the matter indeed. Very low rates (50 to 300) can, however, be stated in comparative figures, while very rapid interruption does not require a numerical term to express its frequency. Speed, as stated in mere figures per minute, is so involved with other qualities of adjustment, evenness, constancy, length of period, etc., that the advantage of a mathematical record can be greatly overestimated.

I have referred to this in other of my writing, and it is out of place to dwell on this point at present, though it is one of peculiar interest. A closely related feature, however, may claim our attention briefly.

It is the ideal of some who have sought to define faradic dosage by rate of interruption, and who have devoted much time and special thought to the improvement of faradic apparatus, to construct an independent interrupter, actuated by a current separate from that which supplies the inducing force.

The reason for this lies in the fact that every change in the regulation of current strength made in the primary circuit varies the rate and force of the interrupter in instruments as generally made. A prominent writer has ably argued the advantages of such a method, and states that it can be adapted to every kind of contact-breaker, the motor power for the rheotome being furnished by a single separate cell. The importance of steadfast E. M. F. and unvarying evenness of interruption throughout all gradations of the induced current strength is so great, so essential to the satisfactory employment of faradic electricity, that no battery not providing for independent secondary current control can be considered as representing the advanced progress of to-day.

Manufacturers of medical batteries, however, do not all agree with the writer who advocates the separate cell for the interrupter, and are well-nigh unanimous in declaring that the mechanical obstacles to the device are insurmountable in practice. The theory is correct, but makers have failed to apply it successfully to the spring vibrators in common use. My apparatus easily surmounts the difficulty; furnishing not alone one cell to actuate the break-piece, but places six at our disposal at will, as independently as any theorist could desire. My former article describing the improved induction apparatus designed by me referred to this feature at some length, but I wish to emphasize again the far-reaching importance of the secondary rheostats which accomplish this purpose in my battery, and to state further that, were their usefulness and influence restricted to mere regulation of induced current strength, without jarring or irregularity, or change in the primary flow, the advantage they would thus contribute to clinical handling of both patient and battery would alone stamp this apparatus as without an equal in therapeutic convenience and capabilities. That beyond this these rheostats make possible a practical dose record is proof of their fundamental necessity to a perfect instrument. If still unconvinced that they are indispensable, let us attempt to adjust a slowly interrupted induced current—say fifty periods per minute—to a dosage of strength sufficient to produce powerful but painless, rhythmical, and non-tiring contractions of certain arm muscles, with a gradual and even decrease to scarcely perceptible sensation. With the ordinary interrupter, sliding coil, or primary rheostat, it cannot be done, even with the costliest appliance in the market. With my apparatus it is done instantly and with the most striking success. As an object lesson in the inadequacy of old methods of current regulation, and of the superior efficiency of my secondary rheostats, it leaves nothing open for argument. Professor Crocker's letter appreciatively sums up the rest.

TREATMENT OF OZENA BY INTERSTITIAL ELECTROLYSIS.—DR. CHEVAL.

TRANSLATED BY DR. CHANDLER.

It is now three years since we commenced treating our different cases of ozena by cupric electrolysis. We wish to insist only upon those facts which are proven. Some of our patients, who have been cured, remain under regular, periodical observation; there has been no relapse for months, and, in some of the first cases cured, for over three years. We think that no one can accuse us of precipitation in announcing a method of cure for so intractable a disease as ozena.

For interstitial electrolysis are needed:

1. A source of constant electric energy.
2. A milliampere metre that has been tested.
3. A rheostat.
4. Needles isolated by a bit of rubber drainage tube.

A needle of silver or copper is inserted into the mucosa of the middle turbinated bone, through the bone itself or else into its concave surface, which is usually the one affected. A steel needle in the mucosa of the inferior turbinated bone of the same side, placed as nearly as possible between the mucosa and the osseous substance, and extending the whole length of the bone itself, completes the circuit. In those cases where there is a deviation of the septum we insert our negative needle there.

The nostrils to be operated upon are rendered anesthetic with cocaine, and, as far as possible, aseptic; the needles are made aseptic by heat; the insertion of the needles and the passage of the electric current are both, in the great majority of cases, painless.

Some patients, however, complain of true hemicrania, or of a dull pain behind the eye, between the eyes, or at the nape of the neck; this may cause congestion of the conjunctiva and lacrymation. These symptoms may persist for several days. In most cases there is no appreciable trouble, but a sense of well-being comes on after the first few days, and with this, as a first symptom, the disappearance of the stench. Rhinoscopic examination shows the entire mucosa of the middle turbinated bone covered with a bluish green layer and the eschar of the lower turbinated bone does not extend to the mucosa. Repair is complete in from 12 to 15 days.

After cure, in recent cases, the mucosa regains all its characteristics; in severe cases a certain amount of atrophy persists. It seems incontestable that interstitial electrolysis instead of causing atrophy brings about a regeneration of the atrophied mucosa. There were 91 per cent. of cures.

—Revue Internationale de l'électrothérapie.

Book Reviews.

THE MEDICAL MUSE, GRAVE AND GAY. Collected and arranged by John F. B. Lillard. Published by I. E. Booth. New York.

If one can overlook the many typographical errors, to say nothing of the grammatical ones, he may enjoy this collection of jokes on the medical man, for there are some very good extracts in it for light reading. We believe, however, that the author makes a mistake in the poor excuse he offers for producing his collection, as indicated by the closing paragraph of his preface, when he states that, "as the busy practitioner has no hour of leisure, he presents it as a solace for the time between the call of the last patient and the next ring of the door-bell." If there is any such interval to the "busy practitioner" it should be improved by study. If the doctor has spare time he may amuse himself.

As ludicrous a paragraph as occurs in the whole book is the ungrammatical expression of the first paragraph of the author's preface, which runs as follows: "There is not, so far as the compiler is aware of, any collection of medical poems in the English language yet been published." Such mistakes occur from a carelessness in separating a main verb too far from its auxiliary.

THE FUNCTIONAL EXAMINATION OF THE EYE.—By J. Herbert Claiborne, Jr., M. D., Adjunct Professor of Ophthalmology in the N. Y. Polyclinic; Instructor in Ophthalmology College of Physicians and Surgeons, N. Y.; Assistant Surgeon to the New Amsterdam Eye and Ear Hospital; Author of "Theory and Practice of the Ophthalmoscope." 100 pages, With 21 Illustrations.

The writer has had many calls for

a book that will give in the simplest form the successive steps to be taken in the examination of the eye for spectacles, and has contemplated writing such a book for the use of the beginner, that will not confuse his mind, as the larger works on refraction are extremely liable to do. This little work stands alone in bringing the subject to the comprehension of one just starting in the study of refraction. It will save him much valuable time in arranging in his mind what he might pick up from time to time clinically, for here it is all arranged in proper order. We apprehend that this book will have a large sale, as it ought to have.

J. A. T.

COLOR-VISION AND COLOR-BLINDNESS. A Practical Manual for Railroad Surgeons. By J. Ellis Jennings, M. D. St. Louis. Illustrated with One Colored Full-Page Plate and Twenty-One Photo-Engravings. Crown Octavo, 110 pages. Cloth, \$1.00 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry Street.

In this book of 110 pages the author has condensed the essentials of what is known relative to color-blindness. After giving the physiological anatomy of the retina, and the physics of light, he proceeds to discuss the different theories of color-perception and color-blindness, both inherited and acquired, closing with a description of the different tests for the defect that have been devised by Holmgren, Thomson, Oliver and the author himself. The student will get a very good idea of the whole subject by perusing this little book, which has been made attractive to the eye of the reader by the publishers in typography and illustration.

J. A. T.

The Medical Council is the name of a new addition to the already long list of monthly medical periodicals. It is edited by Dr. J. J. Taylor, of the Medical World, of Philadelphia. Its purposes are to educate the general practitioner in the special branches of gynecology, obstetrics, diseases of children and stirpiculture, as stated in its editorial pages. It has some unique and excellent features, and resembles in its general make-up the Medical World. We note among its pages the following little parody from the pen of our Dr. Lewis:

"STIRRUPICULTURE."

A horse "race" resembles the great "race" of man,

Tho' the simile's force is diminished,
For the man's "race" is naught but a "ceil" at the start,
While the other's a "sell" at the finish.
Moreover, in the case of the "race" of the horse,
It's "over" as soon as he wins it;
Whereas in the case of the "race" of the man,
It's "ova" before he begins it.
Then let us be cautious, and wisely remember,
While patiently waiting the issue,
That horse "sells" are naught but a tissue of lies,
And man "cells" allies of a tissue.

BOOKS AND PAMPHLETS RECEIVED.

THOROUGHNESS IN MEDICAL EDUCATION. By Hunter Robb, M. D. Reprint from Western Reserve Medical Journal, December, 1895.

THE ETIOLOGY, PATHOLOGY, AND TREATMENT OF INTESTINAL FISTULA AND ARTIFICIAL ANUS. By N. Senn, M. D., Ph. D., LL. D. Reprinted from The American Journal of Obstetrics.

THE EARLY RECOGNITION OF CARCINOMA OF THE CERVIX. By Hunter Robb, M. D. Reprinted from the American Gynecological and Obstetrical Journal.

CONSERVATIVE SURGERY ON THE BATTLEFIELD AND FIRST AID TO THE WOUNDED. By N. Senn, M. D., Ph. D., LL. D. Reprinted from the Journal of the American Medical Association.

THE EARLY HISTORY OF VAGINAL HYSTERECTOMY. Delivered before the Chicago Medical Society, March 18, 1895. By N.

Senn, M. D., Ph. D., LL. D. Reprinted from the Journal of the American Medical Association.

THE TREATMENT OF MALIGNANT TUMORS BY THE TOXINS OF THE STREPTOCOCCUS OF ERYSIPELAS. By N. Senn, M. D., Ph. D., LL. D. Reprinted from the Journal of the American Medical Association.

METATARSALGIA, (MORTON'S PAINFUL AFFECTION OF THE FOOT): ITS CAUSES, SYMPTOMS, AND TREATMENT; WITH ILLUSTRATIVE CASES AND BIBLIOGRAPHY. By Thomas S. K. Morton, M. D. Reprinted from the Transactions of the Philadelphia Academy of Surgery. Meeting of March 6, 1893.

BIO-CHEMISTRY IN ITS RELATIONS TO NERVOUS DISEASES. By G. W. McCaskey, A. M., M. D. Reprint from American Medico-Surgical Bulletin.

PRACTICAL URETHROSCOPY. By H. R. Wossidlo, M. D., Berlin,

Germany. Reprinted from the Medical Record, September 7, 1895.

THE KINETIC AND THERAPEUTIC ENERGY OF DRUGS. By J. W. McLaughlin, M. D. A Theoretic Explanation of the Causes of Drug Energy, and the Rationale of its Action on the Living Tissue—Elements of the Body.

EXCISION OF THE COCCYX FOR CONSTANT PAIN RESULTING FROM AN UNUNITED FRACTURE. By Lewis H. Adler, Jr., M. D., of Philadelphia. Reprinted from the Medical News, September 28, 1895.

ELECTRIC LIGHT BUG; OR BEL-

OSTOMA. By Theodore William Schaefer, M. D., Kansas City, Mo. Reprinted from the Medical Index.

ELECTRICITY IN THE TREATMENT OF EXOPHTHALMIC GOITRE. By Robert Newman, M. D. Reprinted from the Journal of the American Medical Association, December 7, 1895.

SUPPLEMENTARY REPORT ON THE SUCCESS OF ELECTROLYSIS IN THE TREATMENT OF URETHRAL STRICTURES. By Robert Newman, M. D., New York. Reprinted from the Journal of the American Medical Association, May 25, 1895.



WAYSIDE NOTES.

BY ERNEST B. SANGREE, A. M.,
M. D.

Probably the most literal possible interpretation of the old adage about killing with kindness occurred the other day in connection with the sudden and unfortunate death of Dr. Goodman. It belongs to a type of incident that happens only too frequently, and it seems a great pity that when a man suddenly falls in this way the bystanders do not know enough to do the best thing possible, and that is—nothing.

Dr. Goodman, seeing a train pull out of a suburban station and mistakenly thinking it his own, succeeded by running in reaching the last car, mounted a step or two and then fell prone on the platform. Several well-meaning passengers lifted him up and supported him inside the car to a seat; here he sat helplessly for about two minutes and then fell forward dead.

The explanation, of course, is simple; the exertion of running for the train was too much for the endurance of a heart that was long since known to be diseased. When he fell on the platform his heart had not stopped, but was doubtless either fluttering or beating weakly and spasmodically. Had he been allowed to lie flat on the floor, the easiest position for the heart's work, it is possible that in a few minutes it once more would have regained enough strength to perform its wonted duties. Indeed, from the fact that he lived several minutes after he first fell, I think it not only possible, but probable. But he was picked up, sat upon a seat, and now the extra work imposed upon the heart in that position was just the additional straw wanted to a load that was already more than that organ could bear.

Current Medical Literature.

UROTROPIN.

BY J. A. FLEXNER, M. D.

The favorable reports that have come to my notice regarding Urotropin lead me to think that some additional facts concerning it may not be amiss. Urotropin is a derivative of formic aldehyde, and not a coal-tar product. The well-known antiseptic and preservative power of formic aldehyde in solution led Nicolaier, of Gottingen, to use the solution of formic aldehyde, containing 40 per cent. of the gas, and known as formalin, as a means of preserving specimens of urine from decomposition pending examination. He noticed that neither uric acid nor the amorphous urates were deposited, though the same specimens not treated with formalin deposited either or both, as the case might be. Even when already precipitated, these substances underwent solution when formic aldehyde was added to the specimen. Urines that readily deposited large amounts of uric acid when acidulated with a mineral acid, did not do so when a sufficient amount of the preservative was added.

The results of these investigations prove very conclusively the great uric acid solvent power of formalin. The reputation of the lithium salts as uric acid solvents is caused by the common error of applying the results of laboratory experiments to practical therapeutics. The fact that lithium forms an insoluble phosphate, and that the blood and urine contain considerable amounts of soluble phosphates, show that lithium salts, given by the mouth, must form insoluble phosphates of lithium long before they can combine with the uric acid. In this respect it is no exception to the chemical law that when the ingredients for the formation of an insoluble body are present in a

mixture, this body will always be formed. Medical opinion has for a long time attributed the success attending the use of the lithiated waters to the water, and not to the lithium that they contain. A similar error obtains in the case of some more recently introduced substances, lycetol, lysidin, etc. They do not, in the urine, form the very soluble uric acid combinations that they do outside the body. Formic aldehyde being too irritating to be taken internally, Nicolaier then determined to try its amine combination as a substitute. This substance, hexamethylenetetramin or Urotropin, is non-poisonous even in considerable quantities, is unirritating, very soluble in water, and is as good a uric acid as formic aldehyde itself.

The name Urotropin was given to it on account of the changes which its administration brought about in the urine. Alkaline and putrid urines, containing mucous in excess, pus and pus organisms, uric acid or amorphous urates, were rapidly restored to a normal appearance and an acid reaction. The urine was sterilized, and increased in quantity, and calculi and deposits were dissolved. Hence Urotropin is a most valuable resource in all suppurations of the urinary tract, and in all gouty and rheumatic conditions where an active eliminant of uric acid and its salts is indicated. A further valuable property of Urotropin is its faculty of combining readily with salicylic acid and forming a soluble combination. A solution containing from ten to fifteen grains each of Urotropin and salicylic acid to the fluid ounce of water or other suitable vehicle has the further advantage over the salicylates alone in that its taste is not disagreeable. It appears to be

far less irritant to the gastric mucous membrane than solutions of salicylic acid usually are, and the combination promises to have a wide range of therapeutic usefulness.

From the American Practitioner and News.

During the discussion which followed the reading of a paper on "Chronic Lithemia, With a Consideration of Various Uric Acid Solvents," by J. W. Irwin, M. D., of Louisville, Ky., before the Louisville Clinical Society, Dr. I. N. Bloom said:

"Concerning solvents of urates or uric acid, I just finished the treatment of a case yesterday which came to me two weeks ago, in which I tried Urotropin; the patient was referred to me by Dr. Scott. The specific gravity of the urine was .1030, free from albumen and sugar, but a large quantity of uric acid was present; the urine was highly colored, the coloring matter being decidedly increased. I gave him Urotropin in five-grain doses four times a day, and in three days the urine had become perfectly clear, there was no deposit at all, and the patient was discharged yesterday.

"This is the only case in which I have used Urotropin, and simply wish to add it to the other solvents."

Dr. Wm. Cheatham stated:

"I have used Urotropin in several cases with good results. These were cases of asthenopia found to be due to the uric acid diathesis, there being general rheumatic symptoms. In giving Urotropin I combine it with salicylic acid. I give two drachms of Urotropin and one drachm of salicylic acid in eight ounces of water, a tablespoonful at a dose. This would make the quantity of Urotropin taken at a dose about eight grains."—The American Therapist, New York, January, 1896.

CHURCH CATARRH.

Referring to a paragraph which recently appeared on this subject in the British Medical Journal, a correspondent in the Standard calls attention to the absence of a cloak room as one of the contributory causes of illness in those who attend places

of worship. We merely drew attention to one matter pertaining to the church itself, and we by no means suggested that many other conditions might not work in the same direction. There can, we think, be little doubt that there are many evils connected with the too common practice of importing into the sacred edifice wet or snow-laden overshoes, capes, and mackintoshes, and even umbrellas, to exhale during the service a "pestiferous moisture in immediate proximity to the worshippers and to render the genital atmosphere additionally retentive of the morbid effluence of a congress of animals," as described in the Standard. The art of making churches comfortable, and providing for their frequenters those luxuries which are taken for granted at all other places of public resort, except perhaps political meetings, is in a somewhat backward state, and in many such matters there is a good opening for reform. We have not yet heard it put forward that church going is regarded by church teachers as a matter of penance, and even if it were, it might be whispered that the artifice attributed to the monks of old of boiling the peas with which on days of pilgrimage their shoes were stuffed, is not unworthy of imitation, and that comfort even in well-doing is not to be despised.

ENDOCARDITIS.

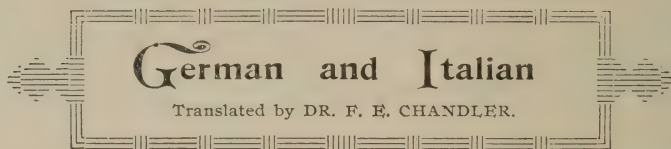
As soon as the heart-sounds in acute articular rheumatism begin to grow muffled, or a bruit is detected, give in addition to the salicylate, iodide of potassium 0.60 centigram three times daily. Also flying blisters over the apex and along the course of the fourth, fifth and sixth intercostal nerves.

Caton Sem. Med.

CHLOROSIS.

In true idiopathic chlorosis, where iron is ineffectual, sulphur will produce a marked amelioration. After using sulphur, iron can again be resorted to, and it becomes very beneficial.

Schultz, London Med. Times.



MOELLER'S DISEASE IN CHILDREN.

After a short resume of the discovery and history of this disease, the author says: "The children afflicted with Moeller's disease are usually under one year old, rarely more than two. The status of their parents is usually modest, but this disease has been seen in the children of the rich. Symptoms of rachitis are often present, but rarely in its worst forms; it is in the minority of cases only that these symptoms seem to be wanting. The disease usually breaks out in the cold season. It commences suddenly with restlessness and malaise. A very characteristic and well-marked symptom makes its appearance early—the tenderness and swelling of several points in the continuity of the long bones. The affected extremity is more or less immobile (pseudoparalysis). The swelling is deeply seated—in the periosteum or below it.

It may correspond to the epiphysis or to the diaphysis, and occasionally may extend over the entire bone. As the tumor increases, the fleshy parts become firmer and the stretched skin may be discolored, but generally is unchanged.

Pressure with the finger usually leaves a slight trace.

In certain cases, not always in the most serious ones, there may be a separation of the epiphysis in several places.

It is only exceptionally that bones other than the long ones are affected. To this state of things is often added a bluish swelling of the gums around those teeth which are through or on the point of piercing.

Occasionally, a swelling similar to

that of the long bones comes on the upper jaw. Often there are profuse sweats, sometimes also viscous and bloody diarrhea; rarely, vomiting. There is loss of appetite; the color of the skin grayish; nervous symptoms are moroseness and insomnia. Finally, in very serious cases, there is a tendency to extravasation of blood; petechiae, sugillations of the skin, nose bleed.

The disease may last six to eight weeks, or even months. Remissions alternate with exacerbations. Symptoms of a hemorrhagic diathesis are of bad augury; if these are wanting then recovery is usual. Return to health should be aided by general sanitary measures—fresh air, sunlight, good food. Some specialists attribute great importance to an antiscorbutic treatment.

This schema varies according to the severity of the disease; but all forms have the following symptoms in common: The disease makes its appearance when the child is between six and twenty-four months old; swelling firm and painful on pressure; single or multiple swelling, corresponding always to the long bones.

Other symptoms, as those of rachitis and the swelling of the gums, may be wanting. Two important negative signs are as follows: 1. Pus has never been found in the swelling, always blood. 2. No articulations are affected by the process.

The author adduces ten personal observations, and declares that, in his opinion, Moeller's disease has absolutely no connection with scurvy.

—Dr. Hirschsprung,—Hospitalstidende.

NEW METHOD OF CURING UMBILICAL HERNIA AND EVENTRATION.

In the last reunion of the Polish surgeons, in Cracow, Dr. Volkowitch showed the following procedure: For the cure of umbilical hernia he uncovers the internal portion of the two rectus muscles; he next cuts them and rejoins them in such a way that they cross each other.

To remedy eventration the author proposes shortening and crossing of the liniae albae of the recti. In this way both the transverse and longitudinal dimensions of the abdominal wall are shortened. To prevent hernia and eventration following operations upon the abdominal cavity, Volkowitch proposes to make the cut, not through the linea alba, but across one of the recti, for the reason that a muscular cicatrix is far more solid than one of the connective tissue.

—Kronika Lekarska.

A CASE OF HYSTERIA IN THE MALE.

Dr. O. Magalhaes reports an interesting case of hysteria in the male, with hemiplegia and hemianesthesia of the right side. A delineation of the retinal image accompanies the work.

A sensible amelioration of all the symptoms followed psychotherapeutic treatment.

—Ann. de Sociedade de Med. e Chirurg. da Bahia.

A CASE OF EPISPADIAS.

Dr. F. Kornfeld reports a case of this curious genital anomaly that he observed in a waiter, twenty-six years of age:

Two cuts that accompany the text contribute to a better understanding of the case.

The sheath of the penis is well developed and of normal length, but is so placed around its axis that the dorsal fissure, instead of being on top is to the left. This torsion is caused by the unequal insertion of the corpora cavernosa.

The patient, who came to Dr. Fritsch's clinic, on account of an acute gonorrhea, says that he has

been aware of his deformity since childhood, but no one of his family had been similarly affected. He also says that during erection his penis is deviated somewhat towards the left groin; that the genital and vesical functions are performed easily, and that he had his first gonorrhea at the age of 19.

The author goes into details of the case, which is especially interesting on account of the non-cleavage of the prepuce.

—Wiener Med. Wochenschrift.

TROPHIC TROUBLES IN BLENNORRHOEA.

The case referred to is extremely interesting because of the pathogenic queries it contains.

The toes of the patient were bristling with actual horns. Horny growths extended over the external and internal borders of both feet. The plantar region is covered with a horny sole, about one centimetre in thickness and extending over nearly the whole plantar surface. The free extremity of most of the toes is sheathed in horn, and caused loss of the nails by encroaching upon the unguis matrix. These horny masses are disposed on both feet symmetrically.

Among other things, the patient had a noticeable amyotrophy of the muscular masses of the lower limbs and considerable exaggeration of the patellar reflexes.

By what mechanism does gonorrhea favor the production of these horny growths? We do not believe that there can, in this case, be any question of an infection of the blood by the gonococcus.

The analogy between these cutaneous horns and other manifestly trophic troubles, the symmetrical disposition of the growth, its indolence, its localization or its predominance on the lower extremities, the integrity of the skin near the eruptive masses, lead me to think that it is no question of a direct manifestation of the gonorrhea, but that between this and the cutaneous alteration there is a necessary, intermediate agent—the nervous system.

I shall not discuss the hypothesis of the polyneuritis, for in similar cases reported by MM. Fernet and Vidal the patellar reflexes were notably exaggerated.

It is then the spinal cord that is at fault; this is the opinion of M. Jacquet, who obtained a rapid amelioration in M. Vidal's patient by hydro-therapy.

I do not consider that the tegumentary dystrophia is the result of a reflex action, having the affected articulations as a point of departure. It seems to me more logical to admit that the blennorrhagic virus—gonococcus or toxin—has reached the medullary axis and modified its trophic power.

In this manner a new conception of the etiology of gonorrheal rheumatism has developed. Although I consider it founded upon a solid basis, I am far from considering every gonorrheal rheumatism as of myelopathic origin. Some arthrites assuredly result from the presence of microbes or toxines in the affected parts.

Dr. Jeanselme, *Semaine Medicale*.

THE TREATMENT OF ACUTE GONORRHEA IN THE FEMALE.

According to Dr. Strassmann, the assistant in the gynecological polyclinic of the Berlin Hospital, the vaginal injections so universally used in all forms of female blennorrhagia are absolutely contra-indicated in the acute stages of this affection. Used in these conditions, it favors the dissemination of the gonococci, especially their penetration into the uterine cavity, thus bringing about complications that might have been avoided.

Our colleague distinguishes two varieties of acute gonorrhea in the female:

In the first, which is localized essentially at the vulva and urethra, the use of all varieties of vaginal injection should be absolutely forbidden.

The treatment of these cases should consist in rest in bed, light nourishment, the use of purgatives

and balsams. Locally, nothing but washing the vulva with a warm solution of zinc sulphate (one teaspoonful to a quart). In the intervals between the ablutions, dressings, soaked in lead water, should be applied to the genitals. If these dressings are used a second time they should be carefully disinfected by boiling. Compresses wet with glycerine or with ichthyolized vaseline (15 to 20 p. c.), may also be used to cover the vulva, and Dr. A. Garofalo, of the hospital of San Giovanni, in Rome, claims that the ichthyol has a particularly favorable action upon gonorrheal vulvitis as well as upon the Bartholinitis that so frequently complicates it.

The second variety of acute blennorrhagia commences at the cervix uteri and shows itself by an abundant muco-purulent discharge from the cervix, accompanied by an inflammatory erosion around the external os.

This is very common in multiparae.

In this form, M. Strassmann abstains equally from injections; in the beginning at all events. He confines himself to swabbing out the vagina with a 1 p. c. solution of corrosive sublimate and tamponing it afterwards with gauze moistened with glycerine and iodoform, 3 to 5 p. c.

Dr. Garofalo prefers to use 15 p. c. ichthyolized glycerine for tamponing; this has the advantage of being inodorous and its antiphlogistic action is very rapid.

Only when the discharge has become mucous should we have recourse to vaginal injections.

Semaine Medicale.

ALCOHOL IN FEVERS.

1. If the tongue becomes dry, discontinue; if moister, the drug is doing good. 2. If the pulse becomes quicker, harm is being done, and the contrary if slower. 3. If the skin becomes moister, the antipyretic effect of alcohol is obtained, and again good is being done. 4. If the breathing becomes easier continue the drug.

Armstrong.

Russian and German

Translated by DR. A. D. DAVIDOW.

THE VALUE OF THE ROMELAEVE LAWS IN THE DIAGNOSIS OF ABDOMINAL MALIGNANT TUMORS.

A. Woinowitsch—Ibid.

In the year 1893, W. Romelaev made a law that a diminished secretion of nitrogen in urine, in abdominal tumors to be patronemonic with malignancy, carcinoma can be expected with certainty.

In 15 cases author made investigations of these laws: six cases of carcinoma of the pylorus, six cases pylorus carcinoma with liver metastasus, three carcinoma of the esophagus and one liver carcinoma besides two cases of uterus ventriculi. In 11 cases of carcinoma, the daily increased secretion of urea below 12.0 (14.2 and 15.1) which does not 12.0 (14.2 and 15.1) which does not coincide with the law of R.

In ulcers ventriculi the mean urea secretion in one case 18.9; in another 21.3. The R. law, however, by the diagnosis of tumors, is not without its significance, namely, in the differential diagnosis of ulcer and cancer of the stomach.

THE TREATMENT OF EMPYEMA

A. Januschewsky, in *Wojenno Medicinsky Schurnal*, Aug.—Nov., 1895."

Author reports histories of 14 cases thoracotomies was carried out without, however, rib resection. After a thorough disinfection of the field of operation, under chloroform with the aid of 2 per cent. cocainization of the surroundings, a 6-inch cut is made in the fifth or sixth intercostal space, in the anterior auxiliary line and the pleura pierced through the opening, retracted and a suitable drain established. When the exudation showed itself in drops only, the wound was washed (1.5000) sublimate or 2 per cent. boric solu-

tion to wash away the possible coagula of pus; entire evacuation of the exudate is not expected, but dressed, touching the wound either with the finger or an instrument. On the same day the wound is redressed. In three cases after the operation the course was entirely without elevation of temperature; in the others the temperature rose at times to 38 and 39 degrees; probably from stopping of the drain, which, however, the author does not ascribe to the method; or that a stagnation should set in, in the rib secretion method in consequence of agglutination and bridge formation.

As to the closure of the fistula the earliest term after the operation was 55 days (1 case). Two cases closed themselves two months after the operation, in four cases three months after, in three cases five months and one case seven months after the operation. In view of the above, the author remarks that an early performed operation does not determine the time of fistula closure. In cases when the operation was performed early on the 14th or 18th day, the fistula stood five months. The quality of the exudation, the bacteriological character of the same, is to be taken into consideration.

From the result of his cases, author pleads the thoracotomy without rib resection, the latter method to be used only when the intercostal spaces are narrow or when secondary operation is necessary.

CHANGES IN THE BLOOD COMPOSITION IN SOME DISEASES.

Ljubomadiom, Ibid.

We will briefly give the results of observation by author in the Moscow Military Hospital:

(a) *Marasmus senilis*—(observations made on the veterans). (1) di-

minished quantity of red blood corpuscles and hemoglobin; (2) an increase in the white blood corpuscles; (3) a relative and absolute increase in the neutrophiles and mononuclear cells. The leucocytes are relatively diminished and somewhat absolutely increased.

(b) Tuberculosis: (1) The quantity of the red blood corpuscles, somewhat increased (on an average of 12 per cent.); (2) hemoglobin diminished to more than 1-4 of the normal; (3) white blood corpuscles increased 11-2 times; (4) the neutrophiles, especially increased in quantity; lymphocytes greatly diminished on absolute and relative increase in the mononuclear c.; (5) eosinophiles more than normal. All these changes progress with the further development of the disease.

(c) Scorbutus. (1) quantity of r. b. c. and hemoglobin diminished; (2) w. b. c. are likewise less than in the normal. In the febrile stages the leucocytes are greatly diminished. In mild cases and in the early stages the mononuclear w. c. are increased; in grave cases and in later stages of the disease the polynuclear are increased in quantity.

(d) Pleuritis: In the serious form the constitution of the blood is not pathological. In hemorrhagic pleurisy a diminished amount of the r. b. c. and the hemoglobin. The presence of eosinophiles in the blood indicates the hemorrhagic condition of the exudate. In eight cases of serious pleurisy no eosinophiles were found. In six cases of eight of hemorrhagic pleuritis a marked quantity of the eosinophiles was found. The prevalence of the polynuclear leucocytes is an omen of unfavorable prognosis, a decrease of the w. b. c., and if the mononuclear white cells predominate indicates favorable results.

(e) Infectious diseases: (1) Croupous pneumonia—an enormous in-

crease of the neutrophiles; in grave cases—no leucocytes, but eosinophiles instead; (2) Intermittent fever, at the onset of the attack a great decrease in the number of the r. b. c. on hemoglobin; w. b. c. increase 1-2 times; neutrophiles 1-4 times; lymphocytes diminished; mononuclear corpuscles increased more than half, eosinophiles are found. In the end of the attack, the r. b. c. increase, hemoglobin greater in quantity, white large cells diminish (six times less than in the normal state. In the commencement of the transpiration the number of the r. c. reaches nearly to normal, hemoglobin still diminishes, the w. c. twice in number to that of normal.

Great increase in the neutrophiles, mononuclear cells diminish absolutely as well as entirely. During the transpiration the r. c. reach a higher number than in the normal, hemoglobin likewise, leucocytes 31-2 times as much as normal, polynuclear cells still on the increase, mononuclear diminish relatively only.

(3.) Scarlet fever. Great increase of the neutrophiles, diminished amount of the other white bodies, an increase of r. c. and leucocytes, a decrease of hemoglobin. No eosinophilic cells.

(4.) Erysipelas. Number of the r. cells normal, a decrease of hemoglobin, a considerable increase of the white.

Various diseases. Skin diseases (ptyriasis supra pilaris, impetigo) the number of the red bodies and hemoglobin totter about normal, the changes are in the various leucocytes; the nonnuclear white bodies especially are increased, very few eosinophiles.

Diabetes insipidus, (2 cases). The r. b. c. nearly normal, a slight decrease of the white as well of the hemoglobin, an increase of lymphocytes, a decrease of neutrophiles.



A CHAPTER ON VENEREAL AND SKIN DISEASES.

When, in a patient attacked with variola, mercurial frictions are used there often seems to be a local reaction. The maculae become more apparent since the exanthem disappears more quickly as the reaction is marked. This, Jarisch thinks, resembles the reactions provoked by tuberculin. Therefore if the specific action of mercury is due to this involution, can other irritants influence syphilides? And Jarish using turpentine as an experiment, used as a friction the following ointment:

R Acid Salicylic . . 10 grains.
Teribnith 15 grains.
Ung. Simpl. 75 grains,

He has by this means obtained rapid amelioration of ordinarily rebellious disorders, as for instance, palmo-plantar-psoriasis, and also other varieties of the same disease.

In impetigo in children St. Philipe recommends Donovan's solution in proper doses; he finds the itching is subdued and the crusts rapidly detach themselves.

STOMATITIS FROM MERCURY.

The gums should be brushed twice a day with antiseptic solutions, such as salicylic acid, 2-10 per cent.; carbolic acid, 1-2 or 1 per 200; boric acid sal. solution; ulcerations should be touched with nitrate silver, iodine or lactic acid and chromic, which is also of service as showing the location of small ulcers through its coloring them yellow.

Soap made with tobacco juice has been used in Argentina as a remedy against itch, and is efficacious.

Pemphigus has been quickly cured by tinct. belladonna, three or four

drops per day, and tinct. belladonna locally.

—Rev. de Therap. Med. Chir.

IODOFORMINE.

This is derived from iodoform. It is white, odorless and takes its place as a good substitute for iodoform in all the uses of the latter.

CYSTITIS.

R Cantharidine. .1 milligram
Dissolve in alcoholis. .1 gram
Add Aq. Distill. .99 grams
Three or four teaspoonsful per day.
—Freudenberg.

DIURETICS IN CARDIAC AFFECTIONS.

From observation of 80 cases Laugger concludes that rest is the first means to employ to provoke diuresis in patients presenting compensatory trouble, and that repose often suffices to cause the disappearance of dropsy by provoking abundant diuresis; four weeks of rest generally causes the difficulty to disappear. The success of the rest cure is prognostic. It may be continued with digitalis, camphor calomel, diuretic, etc. The latter combined with digitalis sometimes gives remarkable results.

—Rev. Ther. Med. Clin.

A CASE OF ADDISON'S DISEASE TREATED BY FEEDING THE PATIENT WITH THE SUPRARENAL CAPSULES OF THE SHEEP.—STOCKTON.

Addison's or Basedow's disease is a disease generally fatal. The author concluded to try the above means, and found at the end of a fortnight an appreciable benefit. He gave two of the suprarenal capsules per day (cooked); appetite returned, the red globules of the blood were increased, and the bronzing gradually disappeared and the case was cured.

TREATMENT OF HERPES ZOSTER.

Purgative.—Locally; absolute dryness of the region affected; apply a sheet of cotton and the following powder:

R Starch.....60 grains
Ox. Zinc...15 to 20 grains
P. Camphor...1 to 3 grains
P. Opium1 grain
Anoint any ulcerations.

FOR THE NEURALGIA.

R Ext. of Strausmus...1 c. gr.
Ext. of Hyoreyanus...1 c. gr.
Ext. of Bellad ...5m. g.
One pill; four pills a day.

A REPORT ON DIMINUTION OF TYPHOID FEVER IN ST. ONEN-SUR-SEINE, FRANCE.

The object of this report is to show that the substitution of filtered water for the water formerly used at this town has markedly lowered the mortality from typhoid fever. From 1885 to 1892 the population of 25,000 furnished annually from 15 to 30 deaths from typhoid fever.

Starting with 1891 the authorities installed in public schools and asylums, hospitals, etc., sand filters, which distributed daily 1200 to 1500 litres of pure water, or 20 litres (5 gallons) for each person. This water it appears lost 98 per cent. of the

germs which it contained. It is true that according to analysis made in July, 1892, the Seine water collected at St. Onen, contained 41-2 millions of bacteria per C.C., so that taking these figures as a basis, after filtration (and the loss of 98 per cent. of germs), the water still contained 90,000 colonies, which, theoretically, is not reasssuring. It is necessary, therefore, to know more precisely the bacteriological value of the filtered water, which has so notably diminished the prevalence of typhoid fever. The decrease is shown by the fact that from 1885 to 1892 the deaths averaged 19 per year. Since 1892, when filtration was established, the average has been 3 per year, this in spite of the fact that the population has increased from 25,000 to 30,000 in the last decade ('85 to '95). The immunity from cholera in 189ⁿ enjoyed by the institutions of the town, is attributed to the use of filtered water. Other towns using the water from the same river, present corresponding results by using filtered water.

The report is interesting. It shows again the necessity of furnishing pure water to cities, and the influence of a fouled drinking water in the production of typhoid. These are truths, which are no longer questioned by anyone.

—Bull de l'Academie de Med.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

ATROPINE IN UTERINE HEMORRHAGE.

It is now about four and one-half years since Freund first called attention to the value of this drug in uterine hemorrhage. Since that time it has been used in almost all the pathological conditions giving rise to hemorrhage from the uterine organs. In many cases a decided im-

provement has followed the administration of the first dose, and in no case does the drug have to be repeated more than six times.

The hypodermic use of the drug is decidedly to be preferred, as it relieves the most profuse uterine hemorrhage in a very few minutes. It may be given in doses of 1-100 gr., and repeated in from three to four

hours, or at longer intervals, as the symptoms may indicate.

In dispensary practice, where most of these cases are seen, a good method is to give a hypodermic of 1-100 gr. sulphate of atropine and in the interval prescribe 1-100 gr. triturates of the same drug, to be taken from six to eight hours apart, and request the patient to return the following day, at which time the dose can be repeated if necessary.

TREATMENT OF SUBINVOLUTION OF THE UTERUS.

Poulat has found the following methods of treatment to be most beneficial in recent and old cases of subinvolution. In the former cases he recommends freedom from exercise, with antiseptic injections. Hot baths and hot douches may be advantageous additions in some cases. For the cases of longer standing the patient's general condition must be investigated, tonics and alteratives administered and hygienic measures carried out. Ergot has not been so satisfactory in Poulat's experience as hydrastis has been in securing contraction of the tissues. In reference to local treatment he advises curetting the endometrium in cases of fungoid vegetation; also prolonged hot, intrauterine injections with antiseptic precautions.

—The Medical Herald.

INTERVENTION IN PREGNANCY COMPLICATED WITH ALBUMINURIA.

At the annual meeting of the Southwest Texas Medical Society Dr. Paschal, of San Antonio, read a treatise on this subject. He said there were few complications more dangerous to the pregnant woman than puerperal eclampsia, and that the etiology is no better understood by us than it was by physicians twenty-five years ago.

The lesions found in cases dying from puerperal convulsions are epithelial and interstitial nephritis; interstitial cirrhosis of the liver with infarcts; considerable development of the connective tissue in the uterus or tubes; inflammation of the car-

diac parenchyma; and considerable distension of the cerebral capillaries, showing that all the organs are affected in eclampsia, and that the appearances of an acute intoxication are present. As the cause of this intoxication is due to uneliminated effete matters, he considers the treatment should be preventive, rather than empirical. As albumen is as a rule present in puerperal convulsions, the urine of every pregnant woman should be examined frequently, and if present, strict diet should be enforced and other measures employed to eliminate effete matter. If, however, in spite of treatment, the patient's condition does not improve, intervention should be employed and labor induced any time after the seventh month, or as the emergency of the case may demand in symptoms of uremia.

He considers the danger attending the induction of premature labor practically nothing, and while a premature child is harder to raise, this should not interfere with relieving the mother of the dangers that threaten her.

Tanner gives the statistics of forty-four cases of induced premature labor extending over a period of ten years. The mortality of the mother was 2.2 per cent., and of the children 18 per cent. A single death was independent of the method employed, the mother dying of pernicious anemia, thus making the mortality really nothing. At Leopold's clinic during three years and a half there were eighty-one induced labors. These labors were done for contracted pelvis, and he considers that the mortality should not be greater if it were done for albuminous complications.

PREGNANCY AND SMALLPOX.

Van der Willigen (Nederland. Tijdschr. voor Geneesk., No. 11, 1895), in closely observing 432 cases of smallpox in women under 50, made particular note of 80 who were pregnant. Of these 15 per cent. died, while the mortality of the non-pregnant cases was 11.08 per cent. Van der Willigen, like some previous authorities, finds that pregnancy in-

creases the predisposition of a patient to the graver forms of variola. In the 80 cases confluent smallpox was seen in four and hemorrhagic in six cases; all the ten died. In the 352 non-pregnant cases the confluent form was observed in 3 and the hemorrhagic in 11 patients; two of the confluent cases recovered. Two pregnant women died of milder forms; of the total, 12, there died five undelivered, and most of the others very shortly after birth without any trace of puerperal infection. Of the primipare, nine per cent. died; of the multipare, 17.25 per cent.; 6.25 per cent. of women attacked by smallpox early in pregnancy died, whilst the mortality of those who were infected later amounted to 20.83 per cent. Abortion or premature delivery was noted in 23 of the 80 cases during the course of the attack of smallpox. In six the same took place after convalescence from the disease; 16 children were delivered alive in cases where the smallpox was still in progress; eight at term, and 8 prematurely; only three lived longer than six months. Several died of variola; two were clearly born with it.

TUBERCULOSIS OF THE HUMAN PLACENTA IN RELATION TO CONGENITAL TUBERCULOSIS.

Schmorl and Kockel (Beitrag zur Pathologische Anatomie, XVI, Part 2) state that the exact method by which the tubercle bacilli passed from the mother to the fetus was not understood at the time when Birch-Hirschfeld and Schmorl reported their case of congenital tuberculosis in 1891. Lehmann's observations show that in acute miliary tuberculosis during pregnancy the placenta may be affected with tubercle as well as the other organs. The placenta, it seems, may occasionally be affected in cases of chronic, pul-

monary, as well as acute miliary tuberculosis.

Autopsies on cases of advanced pulmonary tuberculosis frequently show circumscribed foci in organs other than the lungs, such as the liver, spleen or kidneys. Gartner has demonstrated that where animals with pulmonary tuberculosis are pregnant, the fetus is not so very rarely infected with tubercle bacilli. The present authors have met three cases bearing on the subject.

(1) Autopsy revealed acute miliary tuberculosis; the subject was in the eighth month of pregnancy, and was brought to the hospital in an unconscious condition. Cesarean section was performed, but the child died after two hours.

(2) This patient died during pregnancy with acute miliary tuberculosis.

(3) A case of chronic laryngeal and pulmonary tuberculosis—died suddenly of profuse hæmoptysis. Cesarean section was performed soon after death, but the child was found dead.

In all the cases placental tubercle was found, but only a very little in case 3, and less in the placenta than in the other organs in the other two cases. The tubercle bacilli were probably in all three cases carried to the placenta in the circulating blood, but in No. 2, where there was also tuberculous peritonitis, the bacilli, though less likely, might also have been carried from the peritoneum into the uterus by the fallopian tubes. In acute cases of miliary tuberculosis the bacilli circulating in the blood must be equally distributed to all organs, and the only way to explain why in cases 1 and 2 less tubercle was found in the placenta than in the other organs. In all three cases tubercle bacilli were found in the fetal placenta villi, but only in case 2 were any bacilli found in the body of the fetus.

—Univ. Med. Magazine.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

EXTRACT FROM DISCUSSION ON VAGINAL HYSTEREC- TOMY FOR PYO-SALPINX AND FOR UTERINE MYOMATA.

ERNEST W. CUSHING, M. D.,
BOSTON.

Professor of Gynecology at Tufts' Med-
ical School, Surgeon to the Char-
ity Club Hospital.

Present opinion in France is very favorable to this method. I will not say that its adoption there has not been helped a little by being a French method. I saw a great deal of good work in Paris last summer. My methods of operating will be profoundly influenced by what I saw.

It must not be forgotten, however, that this method has made its way in France against the most violent opposition. When first introduced by Pean, it was opposed by most of the leading surgeons there, but gradually one after another was converted and led to see the advantages of this procedure. The records of the Surgical Society of Paris and of the French Congresses of Surgery show that the same arguments and objections which are now made in this country against this procedure were made vehemently and earnestly a few years ago by eminent French surgeons who now favor and use this method of operating.

In Germany there is Landau who has adopted this system, and they call it there by his name. He has done very good work, but in a great many cases he opens the abdomen to finish. He is not content with leaving any of the diseased tissue, and opens the abdomen to finish his operation in all cases where he cannot remove the diseased appendages through the vagina.

NOTES OF CASES OF EMPYEMA.

Below the age of twenty-three it is unnecessary to remove portions of ribs, but above that age it is essential in order to insure contraction of the abscess cavity. In urgent empyema it is best to use no chloroform, but to freeze the skin with chlor-ethyl spray, which is both rapid and efficient, and the patient suffers no pain. In the absence of chlor-ethyl, carbolic acid may be used. In patients above twenty-three, portions of ribs may be removed the day after the opening, or whenever the breathing is sufficiently relieved to bear chloroform. I am satisfied that in urgent cases chloroform is not devoid of danger. If the double operation must be completed at once, then let a portion of the pus be drawn off by an aspirator previous to giving the anesthetic. In Case 4 we had much anxiety as to the chloroform, and Dr. Connel, of Peebles, who was present, confirmed my observation at the time as to the danger of an anesthetic in urgent cases. In Cases 3, 5, 6 and 7 a portion of the pus had been aspirated previous to the chest being incised, and in these cases we had no trouble with chloroform. The presence of pain on pressure as a symptom of empyema is most important, more especially in local collections, and this must be borne in mind as a valuable aid in the diagnosis of the point or points where pus is to be found. The pain is not, however, present in every case. As regards the operation, the use of chlor-ethyl is strongly recommended in the simple opening of the chest. The only special instruments required in removing portions of ribs are rib-bone forceps and a curved periosteum separator, not too sharp, to insure the safe-

ty of the artery on the lower edge of the rib. The simplest form of aspiration is Helmsley's, with which any amount of fluid may be removed with the least possible trouble.

—Dr. Reuton in Practitioner, Jan. '96.

FOREIGN BODY IN THE BLADDER.

M. Froelich exhibited a huge mass of debris from a crushed calculus removed from a female bladder. The patient was 22 years old. Four years before she introduced into the urethra a hairpin. The calculus in the bladder was the volume of a hen's egg.

The mass was removed through the supra-pubic incision, after efforts had been made to deliver it, subsequent to crushing.

M. Heydenreich observed that this case of stone belonged to a distinct class, the foreign body being the starting point, and usually the lithotomy would fail, with production of possible harm.

PERINEAL ABSCESS.

M. Pousson communicated an observation on a young man who had a perineal abscess, with escape of urine from a false passage made with a sound. A moderate incision was made to open widely the stricture, and a plastic operation made to close the leak.

A catheter was left in the urethra. But there was constant escape of urine through a perineal opening. Catheter was now removed, and six days later healing was complete.

Soc. de Med. de Nancy, Gazette Hebdom., 9 Jan., '96.

TREATMENT OF ACUTE OSTEO-MYELITIS OF LONG BONES.

(These de St. Petersburg, 1895.
By Walter.

This author comes to the following conclusions:

First—The results of treatment depend on the thoroughness and promptness of operation.

Second—In all cases, the bone shaft must be freely opened, thorough graftage, disinfection and drainage employed.

In the milder forms local and constitutional measures may succeed with bone trepannage.

—Revue de Chirurg., Dec., '95.

A TEST FOR DISTINGUISHING BETWEEN SEROUS EXUDATIONS AND SIMPLE TRANSUDATIONS.

Rivalta (Rif. Med., April 24, 1895) finds that if a drop of glacial acetic acid is added to a serous exudate (that is, an inflammatory effusion) a slight white cloud forms in the wake of the falling drop, which precipitate redissolves on the addition of more acid. No such reaction takes place in mere transudation, that is non-inflammatory fluids. A good way of doing the test is to let fall a drop of the suspected fluid into 200,400 c. cm. of distilled water acidulated with two to four drops of glacial acetic acid. If the fluid is an inflammatory exudate, a whitish streak follows the falling drop, and on the addition of more acid, is dissolved. Examination of the precipitate shows that it belongs to the class of nucleo-albumins. The author's method presents a clinical advantage, in that a mere drop or two of the fluid (such as can easily be withdrawn with a hypodermic syringe) suffices to provide material for the test.

Med. and Surg. Reporter.

CLEANING RUSTY INSTRUMENTS.

Brodie gives the following as an effective method of cleaning rusty instruments: Immerse in a solution of chloride of tin in distilled water, allowing to remain over night, then rub dry with chamois after rinsing with running water. They will be of a silvery brightness.

British Journal of Dental Science.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

COCAINE-PHENATE.—(Phenylate, Carbolate.) Viscid yellowish mass, soluble in 50 per cent. A., insoluble in water. Local anesthetic. (Catarrhs, dental operations, etc.) Applied in 1 to 3 per cent. solution, 5 per cent. snuff or pure. Dose, 1-12 to 1-6 gr. Hyp. inj. 14 min., of 1 to 1000 solution.

COLCHICINE.—Amorphous, active principle of colchicum. The crystalline (chloroformic-colchicine) is a combination of colchicine with chloroform. Prismatic, bitter, crystals, very soluble in A., C., E., less so in E. and glycerine, insoluble in cold water. Anti-rheumatic; gout, etc. Very poisonous. Dose, 1-120 to 1-160 gr. Antidotes—stimulants.

CONINE HYDROBROMATE.—From *Conium maculatum*. White, prismatic crystals or powder. Soluble in 2 water, 2 A. Anti-spasmodic, paralyzing respiratory muscles, anti-neuralgic. Tetanus, inj. 1-12 to 1-6 gr. every 2 hours. Whooping cough or cardiac asthma 1-30 to 1-15 gr. 3 to 5 times daily. Children, 1-80 to 1-48 gr. 2 to 4 times daily.

CONVALLAMARIN.—Glucoside, from *Convallaria Majalis*. Brownish white bitter powder. Soluble in water, A. Powerful heart tonic, resembling digitalin, but not cumulative. Dose, 1-2 gr. every 1 to 2 hours, gradually increased to 5 gr.

CONVALLARIN.—Glucoside from *Convallaria Majalis*, not to be confounded with Convallamarin. Crystals very soluble in A., insoluble in water. Drastic purgative.

CORONILLAVARIA.—(*Coronilla bigaree*, nat. ord. Leguminosae.) The

entire plant is used. Cardiac, dose of drug, 30 to 60 grs., of extract, 15 to 30 grs.

COTO.—The bark of *Palicourea densiflora*. Bitter, aromatic, pungent taste. Antisudorific, antidiarrheal (phthisis, typhoid fever, etc.) Dose of 10 per cent. tincture, 50 drops 3 times daily.

COTOIN.—Yellowish white powder, slightly soluble in water, freely in A., E., C., and alkalis. Antisudorific (night sweats), antidiarrheal (typhoid fever, cholera, etc.). Dose, 1-2 to 2 grs. dissolved in acetic ether 1 to 4.

CREATIN.—Constituent of muscular tissue. Opaque, white solid with bitter, acrid taste. The monohydrate occurs in transparent prisms. Soluble in 70 water. Muscular and digestive tonic. Dose 1 1-2 gr. 3 to 5 times daily.

CREOLIN.—Emulsion of carbohydrates from tar with rosin soap (Pearson) or with creosol-sulphuric acids (Artman). Brown, syrupy, liquid, pungent, phenol-like odor and taste. Substitute for carbolic acid. Applied in 1-2 to 2 per cent. solution.

CREOSAL.—(Creosote tannate.) Dark brown, very hygroscopic powder, very soluble in W., A., Gl., and acetone; insoluble in E. Recommended in powder or solution in treatment of air passages. Daily dose 45 grs.

CREOSOTE CARBONATE.—(Creosotal.) Clear, oily liquid, free from taste and odor of creosote. Contains over 90 per cent. creosote. Insoluble in water, soluble in oils. Antitubercular. Dose 60 min. daily, in divided portions, increasing to 4 fl. drs.

(To Be Continued.)

Prescriptions.

TREATMENT OF WHOOPING COUGH.

From London Med. Times.

Citric acid lemonade has been recommended as a prophylactic, also use of ten per cent. solution as a spray.

Local applications: Nasal insufflations of finely-powdered boracic acid gr. ii-iii every three hours during the day, and once during night (Holloway), or equal parts boracic acid and roasted coffee (Guerder), or gr. x-xv of the following:

R Pulv. gum benzoin.
Bismuth salicylataa dr. 4
Quinin. sulphataa gr. 15

To be reduced to finest powder.—Bartholow.

Local applications by gargle, swab or spray:

Corrosive sublimate 0.1 cent. solution.

Pot. bromide alone or with belladonna or ipecacuanha (Korner).

Resorcin. two per cent. spray.

Boroglyceride

R Eucalyptol
Iodoformiaa dr. *
Vaselinaa 1 oz.

Sig: To be applied to mucous membrane of nose.

Inhalations:—

Sulphurous acid.

Fumes from Stockholm tar (place in iron vessel or large gallipot and stir with hot poker).

Carbolic acid.

R Acid carbolic pur. dr. ½.
Potassii chloratis 2 dr.
Glycerinæ 4 dr.
Aquam ad 6 oz.

Sig: Use with a steam atomizer three times daily.

—J. Lewis Smith.

R Quinin. sulphatis 1 dr.
Acidi sulphurici ½ dr.
Aq. destillat. 6 oz.

Sig: Use as a spray to fauces every two hours for first three days, and every three hours afterwards.—Kolover.

Sulphurous acid gas may be inhaled. It is also recommended that the room occupied by patient by day be disinfected at night with this gas, and the sleep-room by day.—Mohn.

R Ammon. bromid.
Potass. bromid aa 1 dr.
Tinct. belladonna 1 dr.
Glycerin 1 oz.
Aq. rosæ 4 oz.

Sig: Use as a spray, from four to six times daily.—Keating.

Internally.—In catarrhal stage.

R Vin ipecac.
Tinct. camph. co aa 1 dr.
Liq. ammon acetatis 2 dr.
Syrup scillæ 3 dr.
Aq. ad 1½ oz.

Sig: One teaspoonful every four hours.

Bromoform is best given to children in alcoholic solution in syrup of acacia, in doses of from one to five minims three times a day (Lowenthal). It may also be conveniently given well mixed with malt extract.

R Liquor hydrogen peroxidi (10 vols) 6 dr.
Glycerin. puriss 4 dr.
Aq. destillat ad 3 oz.

Sig: A tablespoonful in a wineglassful of water, five or six times daily.—B. W. Richardson.

R Acid carbolic pur. 3 gr.
Sodii bromidi 20 gr.
Tinct. belladonnæ 20 drops.
Glycerin 2 dr.
Aquam. ad 2 oz.

Sig: A teaspoonful for a child (three or four years of age) occasionally.—Beall.

R Codein sulphat 1 gr.
Acid carbolic pur 8 gr.
Syrup limonis.
Syrup simplicis aa ½ oz.

Sig: A teaspoonful every two or three hours.—Hughes.

To relieve paroxysm holding and raising greater cornua of hyoid for 60 to 90 seconds sometimes is effective. In severe cases inhalation may be given of chloroform or of the following:

R Chloroformi 1 oz.
Aether sulphuric 2 oz.
Ess. terebinthin rect. 2½ dr.
—Wilde.

R Pulv. ipecac. co gr. ½.
Pulv. extr. conii 1 gr.
Pulv. cinnamon 2 gr.
Pulv. sacch. alb 4 gr.
Ft. pulv.

Sig: To be given at night for restlessness.

R Antipyrin gr. 2.
 Sacch. alb. gr. 20.
 M. et ft., chart, No. xiv.
 Sig: One powder three times a day
 and once at night for very young child-
 ren.—Sonnenberger.

R Pulv. bellad. rad 1-5 gr.
 Pulv. ipecac. co gr. $\frac{1}{2}$
 Sulphuris subl. gr. 4.
 Sacch. alb. gr. 10.
 M. et ft., chart No. i.
 Sig: One powder from two to ten times
 a day, according to age.—Germain See.

Antipyrin and digitalis to pre-
 vent bad effects of paroxysm on
 heart and circulation.

Antipyrin gr. i for each year of
 age, with maximum dose of gr. v.
 Tr. digitalis mi for each year, maxi-
 mum dose mi.—Sajous.

R Cupri arsenitis; gr. 1-100.
 Tinct. nucis vom 5 drops.
 Aquæ 2 oz.
 Sig: A teaspoonful every half hour for
 six consecutive hours, and then every
 one or two hours afterwards.—W. B.
 Stewart.

In declining stages, astringents
 and tonics may be given with cod
 liver oil, malt extracts, etc.

R Alum. sulphat 24 gr.
 Ac. sulphur dil 12 drops.
 Syr. Papaveris 4 dr.
 Aquam ad 3 oz.
 Sig: Two teaspoonfuls every six hours.

R Ext. belladon. gr. $\frac{1}{2}$.
 Pulv. aluminis 24 gr.
 Syr. zingiberis
 Aquæ aa $1\frac{1}{2}$ oz.
 Sig: A teaspoonful every two hours for
 a child of one year.—Goodhart & Starr.



CARE OF THE BABY.

"When my first child was born,"
 said little Mrs. A., "I had the usual
 young mother's craze for a daintily-
 kept baby. The layette was one of
 those gorgeous gift affairs, with
 frocks which Victoria, I am sure,
 would have thought much too fine
 for the royal children—besides every
 conceivable fantastic in which the
 most luxurious-minded infant could
 by any possibility be attired. I used
 to gloat over the sachet-scented, ex-
 quisite little belongings, and the mo-
 ment I was up and about after baby's
 birth I began to play doll with my
 small daughter, decking her out in
 first one thing and then another.

"I had one of those fussy French
 nurses, immaculate as a new pin;
 and between us we scrubbed and
 polished up that baby until it's a
 marvel it didn't fade away before
 our eyes. After a bath in almond-
 meal-softened water, with plenty of
 Lubin and sweet-smelling talcum,
 she did look a darling in her sheer,
 beribboned draperies, and I, foolish
 mother, never noticed her languor
 and waxen skin. I did take note

that her hair wouldn't grow; that
 worried me, for, no matter how be-
 comingly dressed, a child with a bil-
 liard-ball style of coiffure does not
 realize the fondest dreams of the
 maternal heart. I sewed dolls'
 crimps in her bonnets, which was all
 very well for outings, but inadequate
 for home, so finally I called in the
 doctor.

"He was a very grumpy person,
 very curt and not over civil at times.
 'Bathed too much,' he said, briefly.
 'Look at her skin—all the life washed
 out of it. Too much care given that
 child. Let her get dirty and stay
 dirty. Nothing better for children
 than judicious neglect.'

"It was a new idea, and I went to
 work at it. Very shortly we went
 to our country place, and I noticed
 the farmers' babies who ate pie and
 pickles for breakfast, hot biscuit and
 pork for supper, sat in puddles and
 went bare-headed whether the rain
 fell or the sun scorched. They were
 inevitable victims of future dyspep-
 sia, but the fact remained that, as
 babies, they were sturdy and rosy,

and mine wasn't; and I concluded to try judicious neglect.

"I invested in gingham pinafores and stout shoes, dumped a load of clean sand at the side door, and inaugurated a perpetual feast of mud pies. Pauline was instructed not to say, 'Don't' save in extreme moments, and baby began to live the life of a young animal left to the beneficent care of sunshine and fresh air, undisturbed save at regular intervals for food and sleep.

"I bought a pig that she might hang over the pen and tickle piggy's back with a stick. It afforded her hours of pure rapture to echo the pig's grunts with her silvery coo, and in some mysterious fashion the association was conducive to health. I never could understand why, only it was. She would always return blooming and serene, and if to a nap, slept better after having spent this pleasant period with her porcine friend.

"I bought chickens that she might feed them, got doves and other pets about the place, finding that animals gave interest but no over-stimulus to the baby nerves. In short, I never had my wax dolly again; but in the autumn I carried home a blooming, sturdy little maid whose splendid spirits and perfect health more than compensated for occasional mud stains and torn pinafores."

PICKLED FISH.

A good relish for lunch is pickled fish. Take cold boiled fish, and, the day before it is to be used, sprinkle salt over it and pour on a moderate quantity of vinegar. Lemon juice is especially good as a substitute for vinegar, and gives the fish a more delicate flavor. The fish should be carefully prepared beforehand by removing all the bones and separating it into pieces about as large as half your hand. A fish that has very few small bones is the best kind to use in this way. The dish should be garnished with parsley and sliced lemon. In fact, all dishes of fish, whether hot or cold, should always be daintily served and garnished with parsley and lemon.

When this dish of pickled fish is used for lunch or tea, it would be well to serve with it a salad of sliced tomatoes with a French dressing. The tomatoes must be scalded, then carefully peeled and sliced, and set on the ice to cool. It is best to make the French dressing at the table. Use a wooden spoon and fork. Put into the spoon a saltspoonful of salt, a dash of pepper and a little vinegar, perhaps a half teaspoonful, or a squeeze of lemon; mix these together with the fork, then fill the spoon with oil; mix together again and pour on the tomatoes. This must be repeated until there is sufficient dressing for the dish, and about one spoonful to a tomato should be allowed. This is very quickly done when one has learned the knack. The best of imported salad oil should be used. Lemon juice is very nice in this dressing instead of vinegar for those with whom the latter does not agree. When lettuce is used it is indispensable to make the dressing on the table so as to have the leaves fresh and crisp, for, by standing in the dressing for any length of time they become "soggy" and wilted.

—New York Tribune.

THE PARISIAN BATH.

Parisian women put starch in the bath to soften the water, starch being cheaper than borax or toilet vinegars, and more trustworthy than ammonia, which, it is said, induces a growth of down on the skin. The Parisian ladies' maids prepare many delicate toilet waters. They have materials on hand for meal baths, starch baths, flower baths, sea baths and medicated baths. What is regarded as a luxurious bath contains as many ingredients as a Christmas pudding. The bathtub is lined with a linen sheet gored so as to fit the tub. The bath bag contains perhaps almond meal or oatmeal, with orris root, and the contributions of at least a dozen bottles. The tub being filled almost to the edge, the bather gets in and stays there until she is scented through and through.

The Times and Register.

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Original

ILLUMINATING GAS AS A POISONOUS AGENT.*

BY F. W. DRAPER, M. D.

Professor of Legal Medicine in Harvard University. Medical Examiner for
Suffolk County, Mass.

It is a noteworthy fact, in human experience, that agencies and forces which have been devised and utilized to promote the most beneficent ends possess at the same time possibilities of the gravest harm. Steam, under subjection, aids in the highest degree in developing industrial progress and enlarging human happiness; but it has within itself a potentiality of destructive mischief which requires vigilant foresight for its control. The mysterious fluid which we call electricity is undergoing the experimental and sometimes crude attempts of man to harness it for the drudgery of daily work; it seems to delight in the sporadic demonstration of its power to shock and to kill without warning.

So, too, the product which the chemist's skill has extracted from two of the most abundant of nature's materials—from coal and from water—and which, if kept in proper submission and properly used, is

an important aid, as illuminating gas, in promoting the welfare and comfort of mankind, has a toxic quality which is truly dangerous and which is becoming recognized as an available means for the accomplishment of evil purposes.

I will consider briefly in this paper the harmful and destructive capability of illuminating gas and the clinical and anatomical data by which that capability is represented.

My attention has been directed to this subject more forcibly by the increasing number of deaths which official investigation has found, in the last four years to be due to the inhalation of illuminating gas. The appended tabular statement of all the deaths from gas-poisoning in the southern district of Suffolk County, which have been called to my notice, as medical examiner, during the past eighteen years, will make this fact of an increasing mortality, from the cause mentioned, more clear:

The manifest difference between the earlier and the later years of the period shown in the table is sufficiently noteworthy to suggest an

*Read before the Norfolk District, Massachusetts Medical Society, February 25, 1896.

inquiry into its cause. I think the explanation is found in two facts: One is that the company which supplies the illuminating gas to Boston consumers distributes at present a more poisonous product than formerly came from the street mains; and the second is that enterprising, but not always discreet, journalism, widely advertises a reliable means of self-destruction every time the details of a suicide by this method are published.

Year.	Suicides.	Accidents.	Totals.
1877	..	..	..
1878	..	2	2
1879	..	..	..
1880	..	..	..
1881	..	1	1
1882	2	..	2
1883	..	..	..
1884	..	..	..
1885	..	1	1
1886	..	..	..
1887	..	..	..
1888	..	1	1
1889	..	1	1
1890	..	4	4
1891	2	1	3
1892	10	5	15
1893	3	3	6
1894	9	9	18
1895	5	9	14
<hr/>			
	31	37	68

The sudden rise in the mortality rate in 1892 is something more than a matter of chance; it is coincident with the manufacture and distribution of water gas. Before the change was made a death by coal gas was a rare event, but now the cases are numerous enough to be no longer novel. At present the gas which is supplied represents a mixture of coal gas and water gas in indeterminate proportions.

It is not necessary to the purpose of this paper to describe the processes of the manufacture of the two ordinary kinds of illuminating gas. It is sufficient, if we recognize the element which, found in both products, is an adequate explanation of the symptoms and lethal effects after exposure. Among those who have a right to speak with authority upon this matter there is substantial agreement that of all the constituents found in coal-gas or water-gas carbonic oxide is the one which may claim the distinction of

possessing capacity for the gravest harmfulness. If the other components exercise any influence in a harmful direction it is secondary and remote when compared with the more powerful activity of carbon monoxide.

Now, there is a wide difference in the amount of carbonic oxide which the two compounds, coal gas and water gas, contain. The older form of illuminating gas, made from bituminous coal, is found, on analysis, to consist of hydrogen, marsh gas, olefiant gas and other hydrocarbons, small amounts of carbonic acid gas and air, together with from 4.1-2 to 7.1-2 per cent. of carbonic oxide.

The water gas, on the other hand, consists essentially of hydrogen and carbonic oxide only, the latter constituting from 28 to 40 per cent. of the compound product. As it comes from the retorts water gas is odorless; but as it is delivered to the consumer for illuminating purposes it is not readily to be distinguished from coal gas, for, in order to increase its illuminating properties, it has been mixed with a highly luminous product, made from naphtha, or it has been enriched by the addition of coal gas, made according to the older methods from soft coal.

The only excuse for making and distributing this very poisonous illuminant is the economic excuse—the excuse of thrift. Water gas is four or five times more dangerous to the public than coal gas, but it costs much less in the manufacture; and the custom of combining the two so as to form a compound of greater value for domestic lighting does not materially modify the possibilities for mischief which reside in the undiluted product.

I call attention again to the fact that the introduction of water gas has been followed by a noteworthy increase in the number of carbonic oxide deaths each year since the change. This increase is not a surprise to those who uttered emphatic warnings and publicly prophesied the impending harm when the subject was discussed at the time when a legislative sanction was sought for

the new enterprise of giving our people water gas. Nor can it appear extraordinary when we study the conditions and circumstances usually attending the fatal events.

The most emphatic demonstration of the poisonous properties of the illuminating gas at present supplied to consumers in Boston is found in these same fatal cases, and before alluding to other classes of cases, which are not of this most serious degree, I desire to present a brief review of the data which enable one to make a diagnosis of this cause of death from the anatomical appearances. For this purpose I have selected an example from the considerable number which it has been my privilege to examine at the autopsy table. A single illustration of this sort is quite sufficient, since there is close identity in the post-mortem appearances, and one instance may be taken as a type of which nearly all others of its kind are but duplicates:

John P., a house painter, 57 years old, was sent January 16, 1892, to do some inside work in an unoccupied room which had been leased as a store or office, in the second story of a building the first story of which was used for the sale of clothing. P. was alone at his work until half-past two o'clock in the afternoon, when a gas-fitter went to the place and connected the meter in the hallway with the fixtures in the new store, the supply having been cut off since the place was vacated many weeks before. The gas-fitter's work was finished in half an hour, and at 3 o'clock, having tried the three gas-fixtures and found all of them tight and secure, he left the premises, with P. in sole possession. He was positive that no gas was escaping when he went away.

Three hours and a half later persons passing on the sidewalk outside the building noticed the odor of gas and notified the clothier, who proceeded at once to investigate. He went upstairs, found the door of the room in which the painter had been at work locked on the inside. The odor of gas was very strong in the entry-way. A wrench was found

and the gas supply was shut off at the meter. The door of the room was forced open. It was now after 7 o'clock and quite dark. The room was filled with gas; with commendable presence of mind, the man remembered the danger of explosion present in such a mixture and wisely kept his matches in his pocket. He groped about the room and found the keys at the three bracket fixtures turned on full. The windows in the room were closed. P. was found lying on the floor in the middle of the room, limp and warm, but without sign of life. The interval, then, in which the painter was alone in the room and within which fatal toxic effects followed the inhalation of the gas was four hours; the actual time of exposure was probably shorter.

The autopsy was made thirty-eight hours after the death. External inspection found a diffused fresh pink discoloration of the skin upon the dependent parts, in marked contrast with the usual dull-blue lividities. The face had a fresh color, unlike the commonly-observed cadaveric pallor. The conjunctivae were slightly injected; the corneae were bright. The lips were of a life-like tint. The tongue was within the teeth and not between them. There was a little vomitus on the beard. A slight odor of illuminating gas (naphtha) was exhaled from the body.

The internal examination disclosed characteristic appearances. The muscles had a fresh florid color.

The structure of the heart was normal; the cardiac cavities contained blood of a bright cherry-red color, nearly fluid, but showing a few small, soft, stringy clots. There was no engorgement of the right auricle and ventricle.

The lungs presented the anatomical alterations due to chronic quiescent phthisis, with foci of cheesy degeneration bounded by a periphery of indurated tissue. Both lungs showed the characteristic red color everywhere manifest. There was slight reddening of the bronchial and tracheal mucous membrane, and the air passages contained blood-stained froth. There were no punctate

ecchymoses, either subpleural or subpericardial.

The spleen was large, soft and bright red.

The stomach was empty and of healthy appearance.

The intestines showed a reddening of the mucous membrane in the jejunum and upper part of the ileum.

The pancreas was of a pale reddish color.

The liver contained more than the usual supply of blood, and, like the other organs, had a distinctly heightened color.

The kidneys were injected, slightly above the normal size, and of a cherry-red color. The capsules came away with difficulty and the cut section showed anatomical elements obscurely outlined.

The bladder was empty.

The scalp and skull were intact. The vessels of the pia were injected, and bright-red puncta cruenta appeared abundantly on cut sections of the brain substance.

The case may be regarded as an illustrative example of its entire class. It has the advantage of presenting data as to the time of exposure which are not usually available. The anatomical appearances were characteristic. The one central fact which dominates all the rest is the peculiar change in the blood; this change explains the altered aspect of the tissues and makes manifest the true cause of the death. It is a common custom, both in the profession and among the laity, to speak of these cases as examples of asphyxia or suffocation by the gas. In one sense this is an error; but from another point of view it is scientifically accurate. The fatal consequences of inhaling illuminating gas are not due to any obstruction to the entrance of air to the lungs, such as brings about the phenomena and post-mortem changes ordinarily observed in asphyxia; they are produced rather by genuine toxic effects upon the blood wrought by the introduction, through the respiratory organs, of carbonic oxide to a degree that is incompatible with life. The method by which the fatal result is accom-

plished offers one of the most interesting problems in physiological chemistry. It is so graphically described by Michael Foster (*) that I cannot do better than to transcribe his words: "The red corpuscles, by virtue of their hemoglobin, are emphatically oxygen-carriers. Undergoing no intrinsic change itself, the hemoglobin combines in the lungs with oxygen, which it carries to the tissues; these, more greedy of oxygen than itself, rob it of its charge and the reduced hemoglobin hurries back to the lungs in the venous blood for another portion. * * * Hemoglobin combines in a wholly similar manner with other gases (besides oxygen). When a known quantity of carbonic oxide gas is sent through a hemoglobin solution, it will be found on examination that a certain amount of the gas has been retained, an equal volume of oxygen appearing in its place in the gas which issues from the solution. *

* * In fact, hemoglobin combines loosely with carbonic oxide, as it does with oxygen; but its affinity with the former is greater than with the latter. While carbonic oxide readily turns out oxygen, oxygen cannot so readily turn out carbonic oxide. Indeed carbonic oxide has been used as a means of driving out and measuring the quantity of oxygen present in any given blood. This property of carbonic oxide explains its poisonous nature. When the gas is breathed the reduced and unreduced hemoglobin of the venous blood unites with the carbonic oxide, and hence the peculiar bright cherry-red color observable in the blood and tissues in cases of poisoning by this gas. The carbonic oxide hemoglobin, however, is of no use in respiration; it is not an oxygen carrier; nay, more, it will not readily, though it does so slowly and eventually, give up its carbonic oxide for oxygen when the poisonous gas ceases to enter the chest and is replaced by pure air. The organism is killed by suffocation, by want of oxygen, in spite of the blood not assuming any dark venous color. As Bernard

* Text-book of Physiology, page 406.

phrased it, 'the corpuscles are paralyzed.'"

Such is the accepted view of the mode in which carbonic oxide kills, whether the source of the gas be in the invisible but useful agent devised for artificial, domestic illumination, or in the slow burning of wood as in buildings on fire, or in the process of smothered combustion carried on in lime kilns, or in the deadly fumes of burning charcoal. Under all these conditions, a sufficiently prolonged inhalation of carbonic oxide gas leads to identical results.

The time required for the fatal consequences in the human subject will vary with all the circumstances under which the exposure occurs. It is a common experience in these cases to find the victim of imprudence or of a suicidal purpose in bed, in a small room, with all chance of a renewal of the air by ventilation through windows, doors or artificial openings obstructed; with the atmosphere of the room fully charged with the gas which is freely escaping at the wide-open key at the fixture.

Sometimes special provision is made to insure successful results.

The first instance of suicide from this cause which came to my notice was that of a man who had removed the perforated tip from the gas fixture in his bed room and in its place had adjusted a piece of rubber tubing long enough to reach the pillow at the head of his bed; having made all the necessary preparations and written his farewell letters he turned on the gas to the fullest, lay down on his bed, inserted the free end of the tube in his mouth, covered his face with several thicknesses of toweling arranged to keep the tube in position, and thus he quickly fulfilled his purpose. In other instances the careful and methodical sealing of all holes and cracks in the bed room is accomplished with paper and mucilage, or cotton, or articles of clothing. But observation of many cases shows that these precautions to prevent interruption and to secure the desired end in suicidal cases are not essential, for the majority of the fatal instances are found without

them. The case reported illustrates the rapidity with which the poisonous gas does its work without special measures to confine it, the entire interval being less than five hours.

That the death is a sure and speedy one under favoring conditions has been demonstrated experimentally. In 1885, the State Board of Health of Massachusetts undertook an investigation of this subject and among other instructive results determined that animals placed in a chamber containing 1140 cubic feet of air space and 55 cubic feet of water gas died after only an hour and a half of exposure.

There is no indication in the attitude or appearance of the bodies of those who have succumbed to carbonic oxide poisoning that there was distress or suffering of any kind in the process. Generally the cases occur at night, when the victim has retired to bed. When discovery of the fact of death is made, the dead body is found in a perfectly natural posture, with the bed clothing in place, an expression on the face as of one asleep, and entire absence of evidence of any consciousness of unpleasant sensations before death.

But it is to be remembered that this record of fatality is not the only evil result for which illuminating gas is responsible. There are many instances of poisoning by this agency wherein the effects stop short of death. These non-fatal cases may be classified as chronic and acute. Of the latter class, numerous single illustrations are afforded in persons, usually domestic servants and uninformed visitors in cities, who on retiring have extinguished the gas light as they would a candle light. They are found in an insensible condition, out of which they are brought with greater or less difficulty according to the extent of their exposure to the carbonic oxide gas. Of this group of patients I do not propose to make further mention in this communication. But I wish to offer as examples of acute poisoning by illuminating gas some facts relating to another variety of casualty.

On several occasions it has been

my fortune to study the effects of the accidental entrance of large volumes of the gas into the air of dwelling houses, in consequence of the breaking of street mains and other similar mishaps, the gas making its way through imperfectly constructed street sewers or untrapped house drains, or sometimes through the ground alone, through the foundations of the dwelling and so becoming diffused throughout the rooms above.

The numerous victims of these accidents lose no time in bringing claims against the gas-light company whose product has wrought the alleged mischief and in an inquiry made at the request of the defendant corporation to determine the validity of the claims presented, I have had the opportunity to study one aspect of the symptomatology of illuminating gas poisoning. These accidents have numbered as victims persons of both sexes and all ages, to the number of 116. A synthesis of the symptoms, as they were derived from the patients themselves or other sources of information, offers a composite picture of the effects resulting from a brief inhalation of the gas. It is to be understood, as a matter of course, that the circumstances under which the exposures occurred necessarily offered some variety in the details of time, quantity of gas inhaled, individual susceptibility, intelligence and disinterestedness; and this want of uniformity is to be borne in mind in any summary of the symptoms recorded. But even with this discount, we may obtain a tolerably satisfactory view of this interesting side of the subject. Placing the symptoms in the order of their reported frequency, they stand as follows:

In the primary group, or those following immediately upon the inhalation of the gas, were nausea and vomiting, nausea without vomiting, dizziness, headache, stupor, mental apathy, insensibility, great weakness, pain in the eyes, diarrhea, a sensation as of smothering, noises in the ears.

In the group of secondary or consecutive symptoms, reported after

varying intervals of time, were the following: Continued headache, weakness and loss of appetite, persistent nausea, pain in the back, bronchitis, continued dizziness, loss of memory.

The cases from which the data of the foregoing summary were derived represented acute poisoning in only a moderate degree of severity; they might be described as sub-acute. In the entire series there was only one group of such gravity as to have any fatal cases, and these, three in number, occurred in a small basement room which received very large volumes of the gas through a defective sink-drain. Generally the exposure was of short duration and the effects consisted of the four nearly constant symptoms, nausea and vomiting, dizziness and headache. The other symptoms were relatively rare. In only 10 of the 116 cases was insensibility observed and in these it was not of long continuance.

It is in the presence of this last mentioned condition only, that of insensibility, that medical aid is imperatively demanded. This condition is the most serious of all the symptoms of gas-inhalation and generally means impending death. The subject of the correct treatment of this alarming condition of coma does not properly come within the scope of this paper. Only the briefest mention, therefore, of the management of these cases will be made. It is evident that if the view of the cause of the symptoms observed be correct, and if it be admitted that carbonic oxide has usurped the place of oxygen in the oxygen-carrying elements of the blood, the rational remedy is a restoration of oxygen to its rightful place in the blood and an overthrow of the usurping poison. To this end the inhalation of oxygen is an obvious aid; and experience confirms its utility. Besides this measure addressed to the poisoned blood through the respiration, other means deserve trial. The condition of the cardiac function is generally alarming and suggests prompt stimulation. To meet this indication Hoffmann, of Baltimore, has used with excellent effect hypodermic injections of

nitro-glycerine in doses of one sixty-fourth of a grain in the precordial region. Others have suggested subcutaneous injections of strychnia. The persistent use of artificial respiration and of the ordinary means for external stimulation will not, of course, be overlooked.

The subject of the more or less remote secondary consequences of acute poisoning by illuminating gas has attracted the attention of scientific students in France and Germany. The reported results of their researches indicate that the individual who survives the insensibility into which his exposure to the gas has brought him has not in that primary recovery escaped all the perils of the emergency. Among these consequential damages are included bronchitis, hemoptysis and pneumonia; persistent headache, mental apathy, neuralgia, paralysis, delirium, cutaneous hyperesthesia and sometimes localized anesthesia, chorea, aphasia and amnesia, and certain trophic disturbances of which herpes, pemphigus and gangrene are examples; diabetes mellitus and albuminuria are also included in the somewhat formidable train of possible consequences. The anatomical changes wrought in the cerebral tissues by carbonic oxide poisoning have been studied by Bouloche (1), Poelchen (2), Simon (3) and Klebs (4). They agree in the observation that the disorders due to lesions in the brain depend upon capillary apoplexies, meningeal hemorrhages and localized softening affecting the motor zones either cortical or deep; and these changes, they declare, are the legitimate effect of carbonic oxide inhalation, acting as a poison on the central nervous system and producing the psychological and neurological phenomena observed clinically. None of these graver consequences of gas-poisoning have been recorded in this country, so far as

I am aware. The only purely psychological effect of acute poisoning which was observed in the series of cases represented in this paper was a loss of memory, the patient in one instance, a young girl of ordinary intelligence, declaring that all the incidents attending and immediately following her accidental exposure to the gas were entirely outside her memory, although her behavior at the time seemed to her neighbors and kindred perfectly natural.

This study of the poisonous effects of illuminating gas upon the human system will be incomplete without an allusion to another aspect of the subject. I refer to what may be described as chronic poisoning from this source; and I mean by this the consequences of a prolonged exposure to an atmosphere containing a small but appreciable contamination by coal gas or water gas. These consequences are not demonstrable; but they are intelligible and credible. The air of an ill-ventilated room into which, continuously, there is escaping from defective piping-joints or leaking fixtures a steady stream, however small, of carbonic oxide urged forth under pressure, is not without a menace to health. This state of things is common enough in well-ordered dwellings; it is much more common in the tenements and workshops of the poor, who pay rent to landlords who are slow and careless in making repairs. The habitual use of such an atmosphere for purposes of respiration must, one would think, inevitably make an unfavorable impression on the health of the person exposed. May we not find in it one of the factors in the etiology of the headaches, the neuralgias, the loss of appetite, the debility, the gastric derangements which we are too ready to diagnosticate comprehensively and hastily as neurasthenia, but which are only an expression of chronic poisoning by carbonic oxide?

The preventive remedy for the ills and risks considered in this paper is plain. It consists in the rejection of water-gas and coal-gas, as far as is practicable, from the class of agencies for artificial illumination. Human ingenuity will find the sub-

(1) Archives de Neurologie, September, 1890.

(2) Archiv f. Pathol. Anatomie, Bd. xcii.

(3) Archiv f. Psychiatrie Bd. i. s. 260.

(4) Virchow's Archiv. Bd. xxxii.

stitute which will replace this useful but dangerous product. The favorite illuminant of the twentieth century will be electricity, an agent which does not introduce itself to notice by a vile stench; which does not carry a menace of death into every sleeping room, and make easy victims of the heedless; which does not lend itself to the purpose of the suicide; which does not waste and heat and vitiate the air while

doing service in illumination; which is clean, wholesome and cheerful. Such a domestic servant is to be welcomed, and the herald of sanitary progress will not fail to appreciate the great gain to the public health which will follow the general introduction of the incandescent system of electric lighting into our dwellings at such reasonable rates as to compete successfully with illuminating gas.

POISONOUS EFFECTS OF CARBONIC OXIDE IN ILLUMINATING AND OTHER GASES.*

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As time passes and the years grow in number, bringing increased improvements in the arts and many scientific discoveries adapted to the uses of man for convenience and comfort, lessening the labor of nearly all classes, the professional as well as the laboring, the already overtaxed physician is called upon to prepare himself, owing to these very improvements, to meet with new problems and be constantly equipped to face a class of emergencies that strain his mental faculties and often tax his physical powers.

Strokes of lightning have been the cause at rare intervals for some physician to use his skill upon a patient suffering from the effects of electricity; but in this day, when electricity is being so generally used, as a source for light and a power for propelling street cars and light machinery, such demands for the physician's skill are not so rare, and with every care in the handling of this agent, these calls must become more frequent as the use of this source of energy is extended.

Since the introduction of coal gas for general illumination in the early part of this century, when the streets of London were first lighted by it, cases of poisoning from the inhalation of the escaping gas have been quite frequent, and the frequency of the cases has grown as improvements in the process of manufacture have lowered the price and admitted of a more general use.

Of recent years science has made practical the manufacture of the so-called water gas, which is almost as old as coal gas; and has still further reduced the price and extended the use of gas, not only as an illuminant, but also as a fuel for cooking; and judging from the present signs, the time is not very distant when the price will be so lowered as to admit of gas being used as a general fuel, even supplanting coal for heating our houses. With the introduction of this water gas there has been a great increase in the number of cases of gas poisoning, due in some measure to the increased consumption, but especially to the nature of this gas, water gas being much more poisonous than coal gas and more liable to escape, requiring very close joints in the pipes and fixtures used in conveying it.

In order to more fully understand the difference between these two gases, it will probably not be out of place to give a brief view of the processes of manufacture.

Coal gas is made by the destructive or dry distillation of some form of bituminous coal, the coal being heated in closed retorts to drive off volatile matter, while coke remains in the retort.

Upon the management of the heat used, as to intensity, and the rapidity or slowness of the process, the amount and nature of the gas depends, especially as to richness in illuminating power. The gas carries with it from the retorts a number of by-products which must be removed

*Read before the Norfolk District, Massachusetts Medical Society.

in the purifying; some of these by-products, as coal tar and ammonia, are valuable, while others, as carbonic acid, sulphuretted hydrogen, sulphur, etc., are useless and harmful.

The water gas process consists in having a large upright, fire-brick lined iron generator, so constructed as to admit of anthracite coal or coke being placed in the lower part and brought to nearly a white heat, when water in the state of steam is blown through. In the presence of this highly heated mass of carbon a decomposition of the steam takes place, the ultimate elements of the water, hydrogen and oxygen, are set free and proceed to form new combinations, a little of the hydrogen taking up carbon to form carburetted hydrogen, the greater part going off free, while the oxygen as it first comes in contact with the incandescent carbon, and is present in sufficient quantity for complete combustion to occur, forms carbon dioxide; but this carbon dioxide being surrounded by a surplus of red-hot carbon, is changed to carbon monoxide. The highly heated carbon by extracting from the carbon dioxide one atom of oxygen changes it to carbon monoxide, while with the stolen atom of oxygen the carbon forms another molecule of carbon monoxide, hence the hydrogen present in the steam passes off almost entirely in combination with the carbon as carbonic oxide, the result always of the incomplete combustion of carbon.

The mixture of gases so far produced is known as the "body gas," and consists of marsh gas, carbonic oxide and hydrogen, with a little carbon dioxide, sulphuretted hydrogen, etc. This "body gas" burns with a blue flame and has but feeble illuminating property, requiring to be enriched in order to burn with a white flame for illumination.

The enriching or carburetting, as it is sometimes called, is carried out in the upper part of the generator or in separate retorts, by pumping in crude petroleum or some of its products rich in carbon, such as crude naphtha. The intense heat of the chamber decomposes this crude oil into permanent gases, especially the

heavy hydrocarbon gases, known as illuminants, which mixes with the body gas, and the entire volume of gases is conducted off to be purified and stored for use. The process is not a continuous one, as during the introduction of steam when gas is actually made, the temperature of the mass of carbon is soon lowered below the point for the decomposition of the water, so the gas made is conducted away when that point is reached; the conduits are then closed and the generator opened at the top to the air; then air is blown through the mass from the bottom to get up the necessary heat again and soon. There are no by-products of value.

The candle power of coal gas depends upon the quality of the coal used and the care taken in the distillation, while the candle-power of water gas is dependent upon the amount and nature of the crude petroleum or naphtha used in the enrichment.

There exists a very general and quite erroneous idea that water gas is odorless; the body gas may have but little odor, but considering the odoriferous material used to enrich it, the finished product must have odor, and to my sense of smell water gas has a far more disagreeable, penetrating and lingering odor than coal gas.

There is a considerable difference in the composition of these two gases, and it is here we can look for the positive cause of the great increase in the number of cases of gas poisoning and the greater fatality attending them, since the introduction of what the gas engineers call the "New Process Gas." For the purpose of comparison the Massachusetts State Inspector's reports will be used, giving an analysis of the coal gas used in Boston some years ago, and of the water gas used at the present time:

	Coal Gas.	Water Gas.	Water Gas.
Illuminants . . .	6.19	16.59	14.39
Marsh gas.	35.77	19.78	23.43
Hydrogen	49.39	32.07	31.20
Carbonic oxide. . .	6.70	26.10	29.30
Nitrogen	1.37	2.42	1.34
Oxygen . . . . .	.03	.00	.03
Carbonic acid . . .	.55	3.04	.31
	100.00	100.00	100.00

In the manufacture of either gas there is a variation in the finished product from day to day or even hour to hour, but the variation is not very great, so the figures obtained by an analysis at any time represent quite well the general composition of the gas. In the analysis here given special notice is called to the fact that the illuminants are present in the water gas to nearly three times the amount in the coal gas, and the carbonic oxide is more than four times abundant. If we deduct a conclusion upon the basis of the relative amounts of the poisonous carbonic oxide present, it would seem that water gas is four times as poisonous as coal gas, but, judging from experiments upon the lower animals and from actual cases of poisoning, water gas appears to be more fatal than in this ratio.

The injurious quality of either gas is generally considered to be due almost entirely to the presence of carbonic oxide, the other ingredients acting only as negative poisons, in that they do not support respiration and by their presence diminish the supply of oxygen.

Feeble poisoning qualities are attributed to marsh gas by some writers, but in consideration of the fact that since the introduction of the safety lamp to prevent explosions in mines, miners can work where this gas is present in mixture with the air in more than explosive quantities, and feel no bad effect from respiring it, the presence of marsh gas can hardly be considered as a factor in cases of poisoning from illuminating gas.

The illuminants, consisting chiefly of olefiant gas, with small amounts of acetylene and other heavy hydrocarbons, are not looked upon as poisonous, but it is by no means positive that they are harmless, and it may be that the large amount of these in water gas may have something to do with rendering this gas more poisonous than the proportional increase of the carbonic oxide over that of coal gas.

There is no question that carbonic oxide is a very active and fatal nar-

cotic poison when respired in sufficient quantity, and experiments on the lower animals point to 0.5 per cent. as the maximum amount of this gas to be present to reach the danger limit. Actual cases of poisoning show also that the presence of this amount will prove fatal, since deaths have occurred from the continued breathing of a mixture of coal gas and air, where the gas was present to an extent less than 9 per cent., for at about this amount the mixture becomes explosive, but in the room where the poisoning occurred a candle had burned out and a stove had a live fire in it, still there had been no explosion; consequently, upon the basis that 8 per cent. of coal gas was present, 6.5 per cent. of which was carbonic oxide, a simple calculation would give 0.52 per cent. as the actual percentage of carbonic oxide present.

Carbonic oxide, when breathed into the lungs, passes into the blood by absorption and immediately enters upon its destructive work by attacking this vital fluid in such a manner as to paralyze its red corpuscles. The hemoglobin of the blood possesses the power of readily taking up oxygen and of as freely giving it off again, but when carbonic oxide is respired the oxygen, in loose combination with the hemoglobin, is displaced by the carbonic oxide to form carbonic oxide-hemoglobin, which by its presence destroys the respiratory function of the blood, for it can then neither take up oxygen from the lungs nor give it off to the tissues.

This carbonic oxide-hemoglobin turns the blood to a bright red color, which lingers for some time. It is quite a stable compound, so stable that oxygen has but little power to break it up and drive off the carbonic oxide in order to resume its important function; hence the reason that artificial respiration is so inefficient in these cases of poisoning, and that the resuscitation of them is so difficult.

Knowing that the continued respiration of a mixture of gases containing only one-half per cent. of carbonic oxide will prove fatal, it is reasonable to conclude that the continued

breathing of even much smaller amounts will give injurious effects. It is claimed that the odor of coal gas is perceptible when only 1-1000 part is present in the air, and it scarcely seems possible that this small amount could give sufficient carbonic oxide to produce any appreciable result, but in consideration of the peculiar action and extreme poisonous quality of this gas, the day after day respiration of any amount, however small, must in time produce some effect; and there can be but little doubt that many persons have suffered from a kind of chronic poisoning, due to leaks of illuminating gas so slight as to be considered harmless. When this gas gets into the house from leaks in the street mains, in its passage through the earth, the illuminants, the odoriferous constituent, are reduced in amount and often to a considerable extent, with no corresponding decrease of the carbonic oxide, and then it is possible for this deodorized gas to accumulate almost to the danger limit without the presence of it being made known by its odor. Under these circumstances, especially during the winter season, when the houses are kept closed, we may meet with troublesome and puzzling cases and not be able to trace the cause, even if it is suspected.

Poisoning from the fumes of burning charcoal partakes very much of the nature of coal or water gas poisoning, since charcoal fires are not usually very brisk, but are more of the nature of smoldering fires, which give off considerable quantities of carbonic oxide. One observer makes the statement that the fumes from a vividly burning charcoal fire contain about 11 per cent. of carbonic oxide, and about 14 per cent. when the fire is nearly extinguished. Another observer states it has been shown that these fumes contain from 2 to 3 per cent. of carbonic oxide and about 25 per cent. of carbonic acid. There is quite a difference in these two statements.

Now, as to the amount of carbonic acid there must be in mixture with the air, to give fatal results, there is again a wide difference of opinion;

one statement being that it is generally considered an atmosphere containing 10 per cent. of this gas will prove rapidly fatal and that an air containing only 2 per cent. cannot be breathed any length of time with impunity. Another statement is to the effect that a mixture of one part of carbonic acid and three parts of air produced in man but slight discomfort after being breathed for some time. Again, those who at one time used mixtures of carbonic acid and air for anesthetic purposes have stated that air containing 20 per cent. carbonic acid may be breathed without injurious effects.

There is such a wide difference of opinion upon these important points it is not possible to settle upon any definite figures, and as usual where expert medical testimony is to guide, the question must be left to you gentlemen, as to the jury, to draw your own conclusions.

The claim is made that the mixture of the two gases is more fatal than either gas separately, and this seems to be in accordance with experimental results and cases of actual poisoning. To illustrate this, an experiment with the comment on the results will be quoted in full:

"The vapor from some fully ignited fuel was conducted into a closed space in which there was a middle-sized dog whose condition could be watched. In ten minutes the animal fell exhausted, and in 20 minutes it died after some hard breathing. A candle burnt with its usual brightness in the closed room, and it was only ten minutes after the death of the dog that the flame of the candle, from becoming paler and paler was extinguished. The air of the chamber was at this time collected and analyzed. It contained in 100 parts: Carbonic acid, 4.61; carbonic oxide, 0.54; carburetted hydrogen, 0.04; oxygen, 19.19, and nitrogen, 75.62. It would thus appear that less than 5 per cent. of carbonic acid is fatal to life when so little as 1-2 per cent. of carbonic oxide is mixed with it. The burning of a candle under the circumstances will also show that oxy-combustion may be maintained in a mixture by which an animal is killed,

and therefore that combustion can furnish no criterion of safety in apartments in which charcoal has been burnt."

It seems to me that when the dog died the mixture of gases in the chamber contained even smaller quantities of carbonic oxide and carbonic acid than the analysis gave, for this was not made until the candle was extinguished, ten minutes later; during which time the air must have become more and more contaminated, finally putting the candle out. To take the figures as they stand the mixture of one-half per cent. carbonic oxide and 4.6 per cent. of carbonic acid gave more rapid results than would be expected from such a percentage of either gas separately, especially when the oxygen was so slightly reduced, 19.19 per cent. as compared to 20.81 per cent., the normal amount in the air.

Bearing in mind the results of the experiment and the inference drawn from it, we will now consider the ordinary house furnace as a source of poisoning from gases.

The furnace fire as arranged for the night is a good example of a smothered fire, where the supply of oxygen is limited in order to have slow combustion, and the incomplete combustion of some of the carbon with the production of carbonic oxide must follow as a result. The average servant and kid-glove furnace stoker considers it especially necessary to close the chimney damper in order to lessen the draught when the fire is banked for the night. By this proceeding the gaseous products of the smoldering fire are cut off almost

entirely from the chimney, and are pent up in the fire chamber, to leak out through faults or cracks and pass into the flues; in the case of the carbonic oxide gas, even if there are no faults or cracks, it has the power of passing through the pores of heated cast iron, and by this means will reach the flue chamber. Hence on cold nights, when the heat of the furnace is all turned into the flues leading to the sleeping chambers, a faulty furnace may prove the cause of active gas poisoning, and such cases are now and then reported.

We at times meet with patients who sleep well, in fact are rather sound sleepers, but get no restful benefit from it, getting up in the morning feeling tired, drowsy and dull; they complain of a slight headache of nausea sometimes, and of having no appetite for breakfast; they also have a somewhat sallow and anemic complexion. After moving around the house awhile or getting out in the fresh air, these patients feel better and by bed time are quite fresh again, but the next morning finds them repeating the old story.

Have the gases from the mismanaged or faulty furnaces anything to do with these cases? We know that a slight leak of illuminating gas will give a chronic poisoning with a similar train of symptoms.

The question is a new one to me and having raised it, I shall feel justified hereafter, when such cases are met with, to add to my irregular professional duties that of an inspector of furnaces and banked furnace fires.

VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYSIOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

VASCULAR STASIS.

Vascular stasis is a physiological and pathological condition. Besides, it may be artificially induced.

When it is gradually induced from whatever cause, and without injury to the integrity of the larger vessels, an organ or structure will, endure

moderate or complete arrest of the circulation over many hours, or even days, without serious detriment. Under the microscope we may easily observe a delayed, interrupted arrested motion in many of the capillaries.

While the animal is being manipulated, we may notice that while under

the influence of fear, or emotion, no blood flows, except in the larger capillaries; though after a brief period active movements again begin.

Under intense cold the circulation in the exposed parts at first is languid, the larger capillaries become widely distended, imparting to the interment a red glow. This is attended with hyperaesthesia and pain. When the parts are still exposed to a further sinking of the temperature, sensation becomes blunted, and the bright red surface color is replaced by a dull gray, ashy hue. Now vascular stasis is complete, and the corpuscular elements of the blood are congealed. The thermal stasis of the vascular elements of organized bodies is a subject of great interest to the student of natural phenomena and points to the wide difference of the effects of extremes of temperature, of cold and heat; we are reminded by it that a part may be frozen through and through and yet preserve its vitality quite unimpaired. There has been no elementary disorganization; the protoplasmic corpuscles, the living matter, yet maintains its vitality unimpaired, and the being or structure may yet be reanimated or revived. The blood preserves its vitality for various periods, under congealation from frost, or intense cold, according to the age and constitution of the animal, its modes of existence, and the circumstances under which the freezing has been borne.

Prudden found that many varieties of bacteria might be solidly frozen in ice-cakes, without their vitality being destroyed. And, so likewise, we may thrust the frog's feet into a freezing mixture of ice and salt, allowing it to remain immersed until a spur may be broken off, as a pipe-stem, yet, when we are cautious to gradually raise the temperature of the part, allowing the animal to remain in cold water for about six hours, we can once more see the blood moving under the thickened edematous derma, in the larger vessels. The vitality of the blood is enormously influenced by the state of the digestive organs. For instance, in hypostatic congestion of the per-

ipheral vessels in structures the farthest from the heart, when one is under the influence of intense cold, provided the animal be abundantly nourished with appropriate food, great resistance is provided against progressive destruction; while on the contrary with the under-fed, the out-cast or tramp, death or gangrene of a part frequently speedily follows a severe frost bite.

In the historic campaign of 1812, on Napoleon's retreat from Moscow, although the rigors of that winter are said to have been no greater than they usually are in Russia, the mortality from low temperature and exposure was enormous on both sides; in consequence of the reduced vitality of the troops, from insufficient or improper food. Vigorous cardiac action, an abundance of the hydrocarbons with ample exercise, will enable one to resist that vascular stasis of the extremities so fatal to their integrity, when exposed to the depressing influence of severe or protracted frost.

FRIGO STASIS AND THERMOSTASIS.

Cold is a most patent haemostatic agent; one which has as much wider range of application and safer than heat.

Cold acts only indirectly, when so employed, in most cases. Its primary influence is on the nervous system, when, by reflex action through the vaso-motor nerves, the pericapillary tissues are stimulated to contract. We often read of "capillary contraction," but this is certainly a mistake, inasmuch as there is no muscular tissue in their walls. I am rather inclined to believe that when cold is employed, for deep-seated hemorrhage, as from an internal organ as the lung, stomach or uterus, its salutary effects follow, rather from its depressive action on the heart, than directly on the vessels. In post-partem hemorrhage, in vesical hematuria, hematamesis, rectal hemorrhage or bleeding from any denuded surface; when crushed ice or ice water is applied, its action is physical or mechanical. Applied to a raw surface, the chill arouses a contraction of in all the adjacent soft parts; besides it tends to produce a

thickening and coagulation of the blood in all the finer vessels.

Until recent years cold, was the main reliance of the surgeon in all parenchymatous bleedings, in the excision of tumors, resections and amputations.

Of late year, however, thermostasis has come to generally displace it, under many circumstances, I believe, to the disadvantage of the patient. Heat is unquestionably the most potent and positive of all the hemostatics; but like all powerful agents it has serious drawbacks. If not used with caution and discrimination it may work serious evil. In 1879, Emmet, of New York, reported on the great value of heat as a hemostatic in intrauterine hemorrhage, particularly, post-partem. Somewhat later, Paquelin invented his invaluable thermo-cautery and contemporaneously the Germans began to experiment with electro-cautery in surgery.

The potential cautery, we all know, antedated Pare's ligation of the arteries. Before this time, in amputations, the large cautery iron was em-

ployed to close the vessels and char the tissues in amputations. In some cases the ancients employed boiling olive oil as the milder agent.

Then, ligation came, and the potential cautery was cast aside, to be revived again after an interval of more than three centuries.

The late Mr. Keith, whose large experience and great successes in the removal of uterine fibroids have been unequaled, realized his unique operative results through radical hemostasis, which he always secured by the employment of the large cautery irons which bear his name. The ultimate course of his patients, however, was not satisfactory. Adhesion followed. The sharp reactory inflammation in the delicate peritoneal tissues welded everything together in one mass. Vesical tenesmus, intestinal colic and mechanical constipation succeeding, left many of his patients in a more distressed plight than before surgery was invoked. So deplorable, indeed were the after-results that this great surgeon was among the first to hail with delight the Apostolli method of electrization of pelvic tumors.

L'ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number)

CHAPTER V.

(Continued.)

Masturbation does not always invariably produce the disorders we have mentioned, but in incorrigible cases it causes, almost inevitably, notable modifications of the affective faculties and of the character.

Victims of the genital vice become excessively timid, bashful, irritable, capricious, impatient, liars, egotists, cruel, ill-tempered and inaccessible to pity, to great aspirations, to noble actions and to good sentiments.

Pradel says: "I was acquainted with a young lady who had given herself up to masturbation from the time of puberty and when 18 years of age had experienced the disastrous consequences of it. Gifted with the most brilliant qualities she knew

perfectly where her onanistic habits were leading her and how dangerous they were to the health of both mind and body.

"She formed a resolution never again to give way to her desires and had not strength of mind sufficient to keep it.

"Finally, in despair at being unable to keep her resolve, she consulted me and said among other things: 'I find that I have two wills, one that restrains and one that seduces me; the latter in order to entice me uses the most adroit subterfuge and says always: "It is for the last time." . . . The unhappy patient died.' (1)

Two frequent if not constant results of excessive masturbation re-

(1) Loc. cit. p. 23.

main to be mentioned, antipathy to marriage and repulsion for coitus, both of which, pursuing the woman after marriage, have broken up more than one household and troubled many a family.

The onaniste detests marriage and only gives her consent to it under the influence of strong pressure by her family or of exceptional circumstances.

In such a case, coitus is a source of indifference, ennui or repugnance only, and onanism is soon master in the nuptial bed.

If the onaniste does have some pleasure in natural coitus it is rarely sufficient for her, whatever the number of connections may be, because her habitual maneuvers have developed a special centre of erotic pleasure whose solicitations will not be evaded.

Murat (2) cites the following case that is very much in point: "From her childhood Mme. X. had given herself up to masturbation. When 17 years of age she was married to a vigorous and sensual man. This union failed to cure her of her deeply-rooted habit and she would often give herself up to onanistic practices immediately after completed coitus."

RESPIRATORY TRACT.

Functional disturbances of the respiratory tract are exceedingly common in onanistes, especially in growing girls and young women. Loss of breath, choking, dry cough, precipitate respiration, vague thoracic pains, intercostal neuralgia, etc., are often found, phenomena symptomatic of general debility or of nervous irritation of genital origin, for neither auscultation nor percussion show any lesion capable of producing them.

Tissot, Schwartz, Rostan and others have mentioned this in their writings.

Leaving out of consideration the uncertainty and difficulty of enunciation so often met with in onanistes, let us take note of the diminished range, increased roughness and feebleness of the voice, in some cases going on to complete aphonia; also

the frequent "hem" symptomatic of "clergyman's throat" (granular laryngitis) is quite as common in the onaniste as in those who are compelled by their profession to use the voice constantly.

Pulmonary tuberculosis! There seems to be absolutely no doubt that it is a daily sequence of excessive masturbation as well as of excessive coitus.

Whatever the cause of this organic disease may be, experience has shown that everything that weakens the individual predisposes to it more or less, and onanism, by destroying the functional harmony of the system, may easily prepare the way for pulmonary tuberculosis or hasten the morbid process when once developed.

Becquerel reports the following case: "A young lady, 18 years of age, of strong constitution, plump and with a magnificent complexion, contracted the habit of masturbation.

"Six weeks had barely elapsed when the results commenced to show themselves; the lines of her face became drawn; she grew thin visibly and her skin lost its healthy color. She then had palpitations, with spasmodic contraction of the chest and a dry cough that was soon followed by hemiptysis.

"She was sad, discouraged and wept on the slightest provocation.

"A few remedies were tried, but without result; her menses ceased and she grew steadily worse. I suspected onanism to be the underlying cause of the whole trouble.

"Her mother, to whom I communicated my suspicions, indignantly rejected the idea, because her daughter was engaged to be married.

"The girl was sent to the country for the summer and while away from home had some trouble with her knee. While under treatment for this she was taken suddenly with severe headaches, vomiting and fever, these followed by delirium and convulsive movements. Her condition indicated danger. One night the patient was found masturbating. I was informed of it at my next visit and shortly afterwards I was a witness to this infernal habit.

"Questioning the girl brought out the information that she had commenced masturbation six months previously and that she had continued these practices during her illness.

"I remonstrated with her and promised her that I would have her married as soon as her health allowed it, but remonstrances and promises were in vain. She gave herself up to her passion before her parents, before the nurses and before anyone who happened to be with her.

"I ordered that her hands be fastened. She then made movements of the body to supply the want of hands. When forcibly restrained she became enraged and swore and used the vilest language possible. During the day her abdomen swelled; at night the delirium was intense and the patient finally became comatose and died." (1)

DIGESTIVE TRACT.

The stomach is, usually, the first organ to suffer from genital excesses. Digestion becomes difficult and slow in spite of a voracious appetite.

Sometimes there is vomiting or lenteric diarrhea, sometimes obstinate constipation, often perversion of taste, always gastralgia.

The formation of chyme is incomplete, and therefore, the intestinal absorption is imperfect; now, assimilation to repair the continued drain on the organism has recourse to an exaggerated interstitial reabsorption that brings about progressively a considerable loss of flesh and general weakness, followed later by marasmus and hectic fever.

CIRCULATION.

As regards the circulation we notice intermittent nervous palpitations, coming on after the least physical exercise and at the least mental excitement.

To these may be added irregular movements of the heart itself, "cardiac madness," as Bouilland has it; also, fainting fits or even true syncope, usually coincident with the venereal spasm.

That the development of latent cardiac diseases is hastened by onanism may be readily understood.

These derangements of the circulation form, with the respiratory disorders, one of the most potent causes of that melancholia or hypochondria so often seen in onanistes. Anemia, so common in females and the cause of which is often so difficult to determine, may be due to masturbation. Anemia may go on to cachexia, being sometimes, caused directly by manualization, but often only the sequence of the digestive derangements caused by debility or decay of the nerve force.

MOTOR APPARATUS.

The incessant and ruinous waste of nervous energy by the onaniste, the want of assimilation that does not permit the repair of her losses and forces her to become autoprophagist, cause the muscular system to feel the disastrous effects of genital pollution.

The muscles become weak, slender and lose their form and contractility. The least exercise tires them, wearies them, pains them. Falls are frequent. The legs give way under the weight of the trunk; the arms are weak and trembling and the whole body bends in a kind of precocious caducity.

OSSEOUS SYSTEM.

Rachitis and caries of the spine, with all their sequelae, are adduced by Tissot and Rostan as consecutive to infantile masturbation.

Vanier (1) says: "The influence of this evil may extend to the osseous system, causing deviations and even considerable deformation of the spine."

I shall close my long numeration of the diseases caused by masturbation by mentioning merely some others considered by different authors as sometimes due to onanism. Apoplexy (Curtis), induration, abscess, cancer of the cervix uteri (Descuret); aneurisms, rupture of the heart (Rostan); gastritis, hepatitis, enteritis, saccharine diabetes (Curtis).

As proof in support of these assertions is either insufficient or wanting, I leave the entire responsibility for these statements to the authors thereof.

(To be Continued.)

(1) Martin.—Memoires de medecine pratique, Lyon, 1835.

(1) La cause morale de la circoncision, p. 53.



Editorial

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THE OBLIGATIONS OF A PHYSICIAN TO HIS BROTHER PRACTITIONER, OR HIS FAMILY, IN THE EVENT OF ILLNESS.

In a recent, editorial we had occasion to call attention to the spirit of piracy which is openly evident in our profession, especially in high places.

Dover, Dr. Osler tell us (Johns Hopkins Bul. February, 1896), was a noted buccaneer on the high seas; but he took his life in his hands when his craft ploughed the Spanish main in quest of helpless merchantmen, and his calling was by far a more honorable one than that of the medical buccaneer, who, shark-like, with his maw always wide open, engulfs as legitimate plunder his more helpless brother practitioner.

We have previously exposed the shameless rapacity of the medical colleges in New York, which, not content with the lion's share of the hospital positions, secretly conspired to capture them all.

In Philadelphia, the most ancient and popular centre of medical learning in America, we have already been treated to a practical exhibition of the indolent apathy toward the three most influential medical journals of the city, by its medical colleges. As each institution in one way or another acquired sufficient funds to publish a medical journal, in a narrow spirit of selfishness, and envious of each other, they gradually began an undermining process of extermination by withdrawing their announcements and advertisements,

cutting off their subscriptions in an offer of exchange, and, finally, throwing out of the city all of their world-famed medical weeklies.

The Medical and Surgical Reporter was the first to break away, but were soon followed by our own journal in part (The "Times and Register" is still published in Philadelphia, but its editorial office is in Boston, Mass., although it is no longer a weekly journal), and later we were followed, to the surprise of all, by the Medical News. The Reporter, has, however, recently returned to the home city.

But now we are invited to witness the most despicable and unnatural act of all: that of the consultant stooping to rob his unfortunate brother, when overtaken in adversity (i. e., exacting fees for professional attendance rendered the brother himself or his family). This vile practice moves the American Obstetrical Journal to lay on the lash of vengeance in the following appropriate terms:

"DOG EAT DOG. AND THE ETHICS OF THE PROFESSION."

"It is therefore with shame and indignation that we are compelled to recognize a tendency on the part of a certain proportion of our profession, particularly specialists, to charge other doctors and those dependent upon them for surgical attendance. A certain number of cases in which

this has been done very recently by well-known surgeons have been brought to our knowledge. We know that this shameful abuse of a trust is not general and we do not believe it ever will be so, but that it can and has been practiced openly by prominent men, in widely-separated parts of this country, should be enough to place the honorable members of the profession upon their guard and to make them ready to denounce such methods of sharp dealing and legalized robbery, wherever discovered and by whomsoever practiced.

"We do not hesitate to stigmatize such an one as unworthy of his diploma and as an offense to the honorable profession which he disgraces. He has missed his vocation, which is clearly that of horse dealer or some such 'jockeying' trade. Also, highly reprehensible is the medical patient who will not insist upon his rights

but submits to such imposition. His duty clearly is to denounce the surgeon who demands of him a fee, in his necessities, to the County Medical Society rather than to pay it and then to talk of it indignantly afterward."

If the profession would adopt this recommendation in every case of this character, the specialist or physician on receiving a fee from a brother practitioner would be unceremoniously expelled from good standing in his profession.

In no calling and among no clan in any country is there to be found a class more appreciative of a trifling favor than among the members of our own profession. We say this advisedly after an extensive experience. Our services to a sick brother or his family should always be regarded by us as a sacred duty, to be discharged with the greatest assiduity and accommodation.

THE MEDICAL PROFESSION AND THE PATENT MEDICINE TRADE.

In Boston there is quite a lively war going on between a banded society of the best druggists and certain cut-rate fellows, who are striving to knock out patent medicines from the drug trade. The condition of things is such that the patent medicine business is being rapidly disclosed in its true light—that of one grand swindle.

While this is what one might expect, when the true status of patent medicines should be brought to light, yet it is quite remarkable that such dangerous drugs as morphine, chloroform, arsenic, and a number of others, should be allowed by the State to be sold freely to the public in quantities sufficient to kill.

The medical profession have been too apathetic to the dangers of patent medicines. Individual physicians daily see cases where the ignorance of a would-be benefactor has caused the death of a patient lingering from some chronic malady, or at least has caused some serious injury to such person, from recommending a

patent medicine, which, in reality, has no application to the case.

Fortunately most patent medicines are made to "sell," in more ways than one, and for this reason contain a large amount of water, or other inexpensive substance, but now and then a patent medicine is loaded with very poisonous material designed to produce quick "cures" (?) and these are extremely dangerous to the public health.

It is a pity that no State law exists on the subject which will compel the patent medicine man to place a full statement on his labels as to the character and constituents of his remedy. We believe that the physician, as an individual citizen and member of a profession which looks to the betterment of public health, should give his serious thought and influence to this matter, and endeavor to obtain such legislation, in every State in the Union, as will restrict all sale of patent medicines without a full formula of the ingredients printed on the label.

It is almost pathetic to see the ignorance and superstition of some persons, even in higher walks of life, towards the stand a physician may take against the patent medicine man. The public at once recognize (or think they do) a strong competition between the two. They do not stop to consider the physician in the light in which they readily eulogize him on state occasions, as a man whose beneficent office knows no bounds, whose ever watchful eye is engaged in pursuits only calculated for the well-being of the human race, whose energies are always directed to the relief of his suffering fellow-being, and that study, thought and strength are never spared, night or day, to promote these ends. These things are all true of the true physician, but are too readily forgotten by the public when the doctor chances to protest against a venomous evil, which he knows to be eating away at the vitals of individual constitutions, to say nothing of wasteful expenditure of money.

If one cares to inquire into the magnitude of this patent medicine evil, let him cast his eye over the shelves of the "back room" of an apothecary establishment and count the myriads of different cough, kidney and consumption "cures" (?) which are lauded to the skies for all sorts of ailments. The very tone of

the language used on the labels of some of them would provoke distrust to the ordinary business man, were the same used to urge him to buy stock in a manufacturing concern, yet he will unhesitatingly squander his money, time and health in an attempt to prove the claims of the patent medicine man, and lend him his picture for "a consideration," to go the rounds of the daily press, in the bargain.

This picture advertising of faces of Senators, Judges, etc., by patent medicine men has progressed to such a degree that one is fairly certain of what men in public office are the ones who can be "brought up" for any particular legislative measure. We think that this side of the question has never occurred to said Senators, etc., but it might be well to remind them that such is the normal conclusion one must come to on seeing their picture in the public press advertising these vile stuffs.

Let us, then, put our shoulder to the wheel to root out this menace to public health, not as partisans of an uncharitable disposition, or on account of its seeming competition to our profession, but because it is a mighty and real evil which can only be controlled by active legislation, and we are men true to our personal responsibility in the welfare of humanity.

AN APOLOGY.

We have noticed that on several occasions, somewhere on the road between writer and reader, credits for various abstracts have gone astray. Not wishing to sail under false pretenses and thinking it hardly fair to our exchanges that this has happened, we wish to state that, to the *Independence Medicale*, of Paris, to the *Revue Medicale de Louvain*, to the *Therapeutische Wochenschrift*, of Vienna, and to the *Nordiskt Medicinskt Arkiv*, of Stockholm, we are often indebted for interesting ex-

cerpts from medical journals which are not upon our exchange list.

The *Independence Medicale* has a long abstract of Dr. Dunham's article on the germ theory, that appeared in the "Times and Register," of December 28, 1895. We had occasion to speak a few words about our French contemporary some time ago. It is now one of the best medical weeklies that has come to our notice, and should be in every medical library and reading room in the country.



WHAT HAS ELECTRO-THERAPY TO GAIN FROM THE ELECTRICAL
MATHEMATICIAN—A REPLY TO A THEORETICAL
CRITICISM OF MY METHOD OF THERAPEUTIC MEAS-
UREMENT AND REGISTRATION.

S. H. MONELL, M. D.

Readers of the "Times and Register" are aware that I recently published an account of "A Practical Method of Measuring and Registering the True Therapeutic Dose of Induction Coil Currents." In the absence of an electrical Volt-meter, Ammeter, Watt-meter, or any other direct medical dose measurer, my method was offered as a substitute until a better means should be found. The method is all that was originally claimed for it in accuracy and completeness, and can be practically demonstrated to any physician's understanding. Any theoretical questions as to its efficiency are promptly satisfied by a personal experience with its simplicity in operation. An esteemed trade contemporary in Chicago, to wit, the Electrical Journal, copied my article under the sensational and erroneous title: "Alternating Current Meter," with a sub-title, "A New and Unique Method for Determining Faradic Dosage for Purposes of Record—Not Necessary for Operative Employment." The sub-title is correct, but obviously, the author's rheostat should not be referred to as an "Alternating Current Meter," in large type and without warrant.

The substance of my article was, however, published without other change than typographical errors, and in a later issue of the journal is a letter from a correspondent, in which head lines inform readers that "He takes issue with Doctor Monell and points out defects of latter's newly-invented device." This again is decorated with the words "Alternating Current Meter," in large type

at the top. At the moment of reading this alleged criticism I accepted the internal evidence of the letter itself as proof that the writer was merely a somewhat conceited school boy, of the "Louisville Manual Training High School," from which it emanated, and whose anxiety to see his name in print out-paced his stock of practical experience as well as courtesy. His arrogant manner of disputation certainly offered no encouragement to take him seriously, and the following note was mailed to the journal in reply to a request for my views:

A PRACTICAL METHOD OF MEASURING AND REGISTERING THE TRUE THERAPEUTIC DOSE OF INDUCTION COIL CURRENTS.

I have just read with a mixture of incredulity and amusement the remarks of one H. G. Brownell, of the Louisville Manual Training High School, in which he mathematically demonstrates in your interesting journal that "Electricity cannot be measured by ohms," and declares that the method of dose measurement which I humbly ventured to describe to the medical profession without first asking his permission "is not worth an instant's consideration."

Perhaps not, but in a year of practical use it has worked fairly well, without any of the "peculiar and even disastrous results" which my fanciful critic predicts. My article was originally published in the New York Medical Record under the proper title which I place at the head of this communication. In republishing it in your issue of January 15 with a title wholly unwarranted by any claim put forth by the author, you appear to have misled your impulsive correspondent, who seems to have paid more attention to your substitute title than to the original text of my article. The cocksureness of the young man is, of course, prohibitive of any attempt to reason with him, but possibly when he gets through his course of manual training and devotes some time to training the gray matter of his cerebral convolu-

tions, a well-sharpened lead pencil in his dextrous hands will not so egregiously outrun the balance wheels aloft. His evident ignorance of the clinical aspects of the case and his ludicrous jump at a single point, which he, in ignoring the totality of my method, thinks is vulnerable, reminds me of the precocious little boy who conclusively proved by unassailable figures that if a fish was put into a bowlful of water there would be no overflow of H_2O .

A year or more of actual experience in the use of my apparatus in the treatment of a large number of clinical cases might teach this cocksure critic, who charges me with "jumping at conclusions," that while theories and figures may be very well, he should base them upon correct premises. Will you kindly allow me to say in closing that the Monell Induction Coil Apparatus for therapeutic use (not electric light and power purposes) is approved and successfully marketed by the reliable house of Kidder & Co., of New York, whose experience of nearly forty years in the manufacture of high-grade electro-medical apparatus qualifies them, perhaps, to judge of the practical merits of a matter which they closely observed and tested in all its details before indorsing it with the stamp of their well-known names. If your correspondent ultimately becomes a practicing physician and familiarizes himself with electro-therapeutics and the treatment of disease, his future opinion may be worth answering. His present aminadversions are not.

Respectfully,

S. H. MONELL.

Feb. 19, 1896.

His confused figures and his fondness for deriving his facts from a vivid imagination certainly justified the belief that my critic was a first course under-graduate student, but I since learn from an editorial statement, which at first escaped me, that he is not only a "Professor," but was "late chief instructor of the National School of Electricity." The editor of the Electrical Journal further says: "Professor Brownell has so clearly voiced some of the questions that presented themselves to us at the time, that we are willing to allow his criticism to stand for us." This editorial indorsement of a gratuitous criticism, which of itself was not worth a reply, requires that I shall repeat here the principal paragraphs in which the "Professor" points out the defects alleged, and airs his own mental defectiveness at the same time. They read as follows:

(1) I was much interested in reading Dr. Monell's article * * * because of the new electrical theories advanced and because of the fine example of jump-

ing at conclusions. (2) Ohms law, apparently, was not considered (3) and the system if it could be put into operation would lead to some peculiar and even disastrous results. (4) The author's definition of a proper faradic or alternating current dose seems to be the energy the patient can readily bear without pain, and the measure of this energy is recorded in ohms or in terms of resistance.

(5) In the first place, energy is work and not resistance nor current. (6) Let us assume that the E. M. F. of the secondary coil in the author's illustration was 50 volts, resistance of patient 5000 ohms and resistance of coil 2000 ohms. The current was first felt when the rheostat stood at 700,000 ohms, and the resistance of the whole circuit was therefore 707,000 ohms. The current was 50-707,000 amperes; total energy expended in circuit, $50 \times 50-707,000$, equals .0035 Watts, and all but 5-707 was expended in the rheostat. (7) When the current was sufficiently strong the rheostat stood at 100,000 ohms, and the energy of the circuit was, therefore, $50 \times 50-107,000$, equals .0233 Watts. (8) Of this, 5-107, or .001 Watts was expended in the patient. (9) This is only one-third the energy which was originally expended in the 600,000 ohms of resistance, which were cut out of the circuit (10) instead of being equal to it, as is stated in the article.

(11) Suppose, now, some other physician were to take the record "dose 600,000 ohms" and apply it to a similar case with a similar or even the same coil and an equal number of cells of the same kind of battery. (12) But suppose these had run down somewhat—the author says this will not affect the accuracy of the dose record—so that the E. M. F. of the secondary coil is only 40 volts instead of 50 volts. This would cause first perception to take place with a lower resistance. Suppose this be reduced to 600,000 ohms. Then when a "600,000 ohms' dose" was administered the rheostat would be cut entirely out. The total circuit energy would be $40 \times 40-7000$, equals 0.23 Watts, of which 5-7 or 0.164 Watts would be expended upon the patient. (13) This is 164 times as much energy as the first patient received, yet the difference in the rheostat readings or "dose" was the same in both cases.

(14) In example 1 the E. M. F. at the electrodes would be 2.34 volts. In example 2 it would be 12 times as much, i. e., 29 volts. (15) Therefore, this system insures similar results only when batteries, coils, primary rheostats I and first perceptions as indicated by the secondary rheostats are all precisely alike. (16) a thing which will practically never occur. (17) The author's statement that "there is no parallel to this precision of record to be found in the literature of faradic electricity" may be true, but a system which permits of such vast errors as are shown above is not worthy of an instant's consideration.

H. G. BROWNELL.

I. Why does Brownell lug in a primary rheostat which I expressly

exclude from my method? Can it be that he is really not talking about my method at all, but something of his own prescribing?

In condensing this Brownell effusion to the above paragraphs I have added materially to its clearness, for the writer of it apparently does not excel in the faculty of plain statement. His reasoning is so confused, indeed, that any form of clearness would be incompatible with his logic, and he has done well to maintain the unities.

For the sake of definiteness I have numbered his separate assertions and shall proceed to show that every one of them, from 1 to 17, is a fine example of jumping at conclusions, and that "the new electrical theories advanced" are his personal and unsupported assumptions. Furthermore, I shall show that this alleged critic fabricates the whole structure of his fantastical argument out of theory alone; that he misrepresents the method I described, and that in the manner of his discussion and in his egotistical and insolent dismissal of the method which he mangles so maliciously, he forgets the ordinary courtesy of debate, and compels the castigation I shall now bestow.

First: It is well known that no faradic meter equivalent to the constant current milliamperemeter, as a dose-measurer for medical usage, has ever been devised. In the absence of any direct meter, a substitute method possessing practicability is amply justified in the case, and is an improvement upon guess work. In my article on the subject I remark:

"No automatic meter or measuring instrument is required to select the proper dose of faradism for a patient, or to adjust it to the needs of therapeutic use. Direct currents need such an indicator, but induced currents do not. The educated skill of the operator regulates the dose and does it adequately. The existing need is for a standard system of recording the dose administered, and thus impart uniform value to the reports of clinical cases and introduce precision and definiteness into the special literature of the subject."

I suggested such a practical method in a combined record of every factor which affects the action of the current, viz.: 1. Character of the induced current as determined by the coil employed. 2. Description of

electrodes and their situation and polarity during treatment. 3. Rate of current interruption. 4. Tissues treated, condition, etc. 5. Current strength. 6. Time and frequency of administration.

To represent, by substitution, the unknown factor of current strength (all others being easily recorded). I suggested a record of the amount of resistance to the current cut out of my calibrated secondary rheostat between the zero of the clinical application and the full current applied, "the strength of the current increasing in the patient in proportion as the resistance was cut out of the rheostat."

Among other examples given in my article is one selected for particular attack by Brownell, viz.:

"To illustrate the method, let us hold, for example, two ordinary electrodes in the hand, select for our coil one thousand five hundreds yards of No. 36 wire and employ very slow interruptions of, say, seventy per minute. We raise the rod in tube 1 to its full height and switch four cells into circuit. Gradually lowering the contact rod we note the point where the current first becomes perceptible to sensation. It is (in this instance) at 700,000 ohms resistance on the scale. Taking this as our zero unit we continue to lower the rod until muscular contractions are produced as strong as we desire. The rheostat now indicates but 100,000 ohms, showing that 600,000 ohms of resistance have been removed from the passage of the current into our arm muscles, which feel and respond to the force previously expended within the rheostat. If now I record the facts: Coil, 1500 yards of No. 36 wire. Interruptions, 70 per minute. E. M. F., 4 cells. Dose, 600,000 ohms; small sponge electrodes in hands; positive in right. I can repeat the exact application and muscular effect whenever and as often as wished, even should the cells deteriorate by use so as to require five or six cells to equal the energy recorded. There is no parallel to this precision of record to be found in the literature of faradic electricity."

This complete statement of what was done in treating the patient is my form of dose record, and if clinical investigations were reported with this clearness of detail, we could compare results more satisfactorily than has ever been done before.

Brownell says (2), "Ohm's law apparently was not considered." Ohm's law was considered by Professor Crocker, of Columbia College, when

he calibrated my rheostat; it was considered by me when I originated the method I described, and Brownell's assertion to the contrary is either proof that he "jumped at his conclusions," without reading my article or that he deliberately misrepresents the case. Either explanation is significant of his critical attitude throughout.

Brownell declares (3) "And the system, if it could be put into operation, would lead to some peculiar and even disastrous results."

In my original paper I state that the method has been tested by a year of practical demonstration and satisfactory use. Brownell disputes my veracity, and implies that all persons connected with the process of demonstrating this practicability are impostors, by figuring out the theory that no one can do at all what we have actually been doing in a variety of cases. Does he jump also to his remarkable conclusion that besides being impossible, the method "would lead to some peculiar and even disastrous results." Physicians have got along without "disastrous results" while employing medical induction coil currents without any systematic form of noting down such an account of treatment as could be substantially followed by another operator. I venture to present to the medical profession a very simple and easily-understood method of making an intelligent record, and presto! the same physician whose patient was safe from harm before, finds himself liable to produce "peculiar and even disastrous results." We are asked to believe that his accustomed skill in regulating the dose suffers general paresis the moment he marks down the dose he has administered, although he does not do this until after the seance is completed!! The "peculiar result" of such whimsical sophistry is apparent only in the reasoning of this extraordinary critic, whose disregard of the elementary conditions of electro-therapeutics is only equaled by his confidence in advancing preposterous "new electrical theories," and "jumping at conclusions."

In paragraph 4 Brownell attempts to foist on me an alleged definition of a "proper faradic or alternating current dose," which beautifully illustrates his own intolerance of intelligence in others, and his habitual incompetence to state any matter fairly. The basic idea in medicine, that a proper dose is that which will secure the desired therapeutic effect, is too reasonable and simple to find lodgment in the bewildered mind of the theorizing electrical mathematician. I scarcely need defend myself from this foolish charge.

But let us examine one of his own definitions. In (5) he declares that "energy is work." Is it? Did he consult a dictionary to ascertain, or did he characteristically "jump at this conclusion." Both the Century dictionary and Webster contradict Brownell's definition of the word, while I resent the unwarranted and offensive slur which implies that I ignorantly define energy as "resistance" or "current."

In assumption (6) of this ground and lofty acrobat and electrical theorist we come upon an array of figures built out of a picturesque series of jumps at conclusions, volts and resistances, rendered necessary by his want of knowledge of the essential facts involved in the clinical application of medical induction currents. His mathematical exposition of Ohm's law on fictitious and assumed premises reminds us of the mountain in labor bringing forth a mouse.

Taking one known quantity furnished in my article (my rheostat scale of resistance) he jumps at all the other facts (?) relating to E. M. F. coil and patient, and then spouts.

The futility of such figures and the utter uselessness of refuting them will be apparent to any physician who sits down before a patient with an induction coil apparatus at his hand, while he reads that according to Brownell law the dose he must administer to contract the arm muscles vigorously to the shoulder is .001 watts. But this is not all the foolishness of Brownell law. In three distinct sets of figures he "proves" (?) that the increase

in "dose" from zero to the current which contracts the arm muscles from wrist to shoulder is about seven-fold. In a fourth set of figures he "proves" (?) that .001 watt dose is 2.34 volts at the electrodes. (This, with a long fine coil.) II. Now, let any physician, however untrained in

II. Does Brownell mean that this alleged voltage (2.34) is the same at both electrodes? If so, how does he explain away the fact that the muscle stimulation at one electrode is several times greater than at the other? Or has this information not yet reached him, or has voltage nothing to do with effects? Has Brownell determined the difference between the make and break currents, and how many times stronger one is than the other physiologically.

electrical equations, take a Monell apparatus and proceed to make a practical application of my method as described fully in my original paper. Can any theoretical argument convince him afterwards that the physiological effect which he has demonstrated is caused by a "dose" only seven times greater than one producing no effect at all? Is any one certain what the electrical current generated by the secondary electro-magnetic induction coil is? Can it be positively conceded to be equal and identical in character with alternating dynamo street currents? III.

III. Is the interrupted secondary coil current of the Monell apparatus an alternating current at all in the usual sense of the word? Does Brownell imagine it to be a to and fro current equal in both directions?

Is the physiological effect of the coil current conformable to the volt, ampere or watt or fractions thereof? What have volts to do with magnetic saturation? Does the human electrolyte offer to the action of the current the passive condition of a metallic circuit?

What also about the characteristics of static (Holtz) machine currents and their estimated voltage and amperage, as compared with physiological effects substantially the same in certain applications as those produced by some faradic applications? The induction coil current performs "work" in the tissues, and is no doubt something in volts and milliamperes, and we can recog-

nize, feel and demonstrate the work it does, yet, so far, we cannot measure the actual current.

Olm's law is one thing, but Brownell's law, worked out on "jumped at conclusions" and imaginary hypotheses, is quite another thing.

In reality, however, every doctor knows that the mere ratio of increase in current voltage, amperage or "rate of working in the induced current" (expressed in watt units) is not the decisive factor in curative results, whether this ratio be seven-fold or seventy-fold or only two-fold. If the desired therapeutic effect is produced by any ratio of increase whatever, the clinical purpose is accomplished, no matter what figures can be juggled to apparently express a thing which is always regulated by practical skill and experience, regardless of blackboard calculations of commercial currents running through metallic circuits. IV.

IV. Observe "Brownell law" applied to the dose of digitalis! Citing from Bartholow, the dose is: Abstrat digitalis, gr. ss. i; extract, gr. ss. ii; fluid extract minims i, iii; tincture minims, v. dr. i; infusion, dr. ii. oz. ss. Here be "vast errors" galore, for according to all evidence of apothecaries' weights and mathematicians' "laws" gr. ii is four times gr. ss, and oz. ss is 240 times m i; hence "peculiar and disastrous results" would ensue if these doses were given. Yet they are prescribed daily.

But, in paragraphs 11 and 12, my eager critic achieves a new height of blundering eccentricity. He "proves" that when 4 cells have run down 20 per cent. in E. M. F., my unfortunate patient gets 164 times stronger current than he did when the cells were new! This is 23 times the seven-fold increase above zero, which was all the poor man could stand "without pain," in example number one, and is evidently the "disastrous result" prognosticated by Brownell in an earlier paragraph. Think of startling an unsuspecting patient by a sudden jump in his full dose of 16,400 per cent.!! This is worse than jumping at harmless conclusions. It might well be disastrous or even fatal—if it happened. Brownell certainly sheds a new and unexpected light—one of his new electrical theories of peculiar brightness!—on the efficacy of short-cir-

cutting fresh cells and running down their E. M. F. before using. Instead of discarding our old cells, under the mistaken idea that they are worn out, we may go on using them with positive and enormous advantage—although evidently at some risk to our patients, unless we devise a powerful current controller to reduce the dose below the danger of hurting anybody. Just think of the boom in old faradic batteries as soon as this news gets out into the country districts. I am sorry that Brownell did not figure the full potency of four exhausted cells, for, if a loss of 20 per cent. causes our patient to receive "164 times as much energy" as par cells, we cannot help marveling a little at the good results we might get from a further loss of voltage of 30, 40 or 50 per cent.

According to Brownell law, a man who buys a new suit of clothes can wear out the coat and have 164 full suits left.

But I must break away from this attractive thought to point out that the whole of paragraph 12 is an arbitrary attempt to distort the plain meaning of my language and misrepresent the example cited by me. Not content with isolating the rheostat record, which is but a single factor out of six in my complete dose record, and asserting that it alone constitutes the "dose," he ignores the fact that if the four cells (per my illustration) afterwards run down and fall short of sufficient therapeutic E. M. F., a physician has only to switch another cell, or if need be, two extra cells, into the circuit to bring the current up to his needs. I grant that a gifted mathematician who can get "164 times as much energy" out of deteriorated cells as mere medical men can out of fresh cells would not need to switch others into the circuit, but to a plain, simple-minded physician, the idea would seem rather practical and useful.

The assertion in (14) that the E. M. F. at the electrodes would increase 12-fold under his process of increasing the efficiency of 4 cells by taking 20 per cent. off their E. M. F. is another fine example of Brownell law

which will not bear the practical test of one instant's contact with the electrodes. It is so farcical that it is idle to treat the statement seriously. I possess the apparatus, have made the test and take issue with Brownell law on this point. A 12-fold increase of a current already as strong as a patient "could readily bear without pain," would admit of demonstration by the crudest clinical test. The fact is that no such increase takes place in practice. Moreover, I have taken my apparatus and tested anew every assertion which appears in my original article. I adhere to them all and declare that they are borne out by practical experience. I have also taken my apparatus and put Brownell's assertions to the proof of practical test. Not one of them will bear the test of a clinical application. They one and all are utterly without point or practical value in the treatment of disease. They signify nothing. One word in regard to Ohm's law which Brownell affirms "was apparently not considered in the system." The idea of any electrician ignoring Ohm's law is exhilarating in its breezy freshness, but like other ideas of this curious exponent of "new electrical theories," it is incompatible with common sense. Space will not permit me to print here all that was shown in my original article of the true relation between Ohm's law and my method of substantially determining the values of therapeutic dosage. Readers will find the full account in the last two issues of the "Times and Register," as well as in other journals. I may now state, however, that the principle of Ohm's law undoubtedly governs the circuit of the induction coil current in which my calibrated rheostat is inserted. This fact is itself the actual basis upon which my method is framed, and which makes it superior to any method previously suggested, Brownell, to the contrary, notwithstanding. Nevertheless the interpretation of the law in figures is uncertain. In his process of abusing one of my illustrative cases he demonstrates that the minimum current was about 1-14 milliamperes and the maximum current seven

times greater, to wit, 1.2 milliamperes; that the minimum current was, within the patient, 5.707 of the circuit, and the maximum about seven times greater, to wit, 5.107; that the minimum energy thus expended in the patient was .0035 watts and the maximum dose about seven times greater, to wit, .0233 watts. Had Brownell's reasoning powers permitted him to calculate one step further and show that when the current was at his 1.14 milliamperes value, my rheostat resistance was just about seven times greater (700,000 ohms) than it was at his 1.2 milliamperes dose (100,000 ohms), he would have completely demonstrated, as I remark in my original article, that things which are equal to the same thing are equal to each other, and proved the scientific accuracy of a method which he has labored in vain to disprove.

The proportion in all these cases between the minimum and maximum values of the dose is as seven to one, and bears out my assertion that the current strength rises in proportion to the descent of the resistance in the rheostat. Brownell quotes this statement of mine, decorates it with italics of his own fancy and tramples it under foot, figuratively speaking.

But as the principle of my statement is true, and as Brownell's own arithmetic proves it in several convincing ways, it requires no modification at my hands. Nevertheless, it is impossible to directly demonstrate the amperage or the voltage of the faradic current during clinical application and within the patient's tissues, nor would it be useful to do so. By comparative methods of measurement the theoretical values may be estimated, but neither Brownell nor Edison nor any living man can produce a direct measurement capable of accurate repetition of that particular predominating factor of an induction coil current on which its medical uses and its physiological effects depend. If a wattmeter was made to show that the patient received—as Brownell claims—.001 watt, we have only to define a watt to recognize its utter inutility

as a stamp of dose valuation. "Watt is the unit of electrical activity. It is the rate of working in a circuit when the E. M. F. is one volt and the current one ampere." It is obvious, therefore, to all physicians, that the most exact demonstration that a current applied in general or local faradization with various coils was either 1.2 ma., or 50 volts or .001 watts, would furnish no practical guide to the effect upon the patient, nor would any physician be able to compare or repeat effects by following such a dose record alone. One of the most useless indications of a clinical dose would accordingly be the "rate of working" in the circuit, which Brownell produces with great pride as the ne-plus-ultra of his mathematical gyrations. Rate of electrical activity may bear the same relation to the therapeutic result of the current as the rate of speed at which a carpenter builds a barn bears to the barn when complete. But that it is not considered as a satisfactory guide to whether the clinical result will be great or small, stimulating or sedative, physiological or pathological may be inferred from the fact that the elaborate index of the latest and greatest work on medical electricity ever published does not contain the word watt at all, nor discuss its relation to therapeutics. The carpenter's rate of work is not the barn his work builds. Referring readers, however, to my previous article for a full account of my method, as Brownell's garbled version of a small portion of its entirety conveys no real idea of the merits of the subject, I reassert that "the author's method is a comparative record of the current strength," and that by this method "our knowledge of Ohm's law substantially defines for us the values of therapeutic dosage." These conservative statements on my part are as true to-day as when written, and they will successfully bear the severest tests of practical (not merely theoretical) demonstration. What I have done is to provide a rational substitute record for the direct record of a therapeutic meter, which has yet to be invented. To criticize my useful

and humble rheostat for not being the long-sought meter, which it does not claim to be, is insolent effrontery of an aggravated type. It is equally arbitrary and unwarranted for Brownell to hold up to view the fragmentary record "Dose 600,000 ohms," and then labor to disprove what was never claimed, i. e., that a dose value can be expressed by any isolated number of ohms. The idea of a dose record, as fully described by me, is altogether a different matter, and takes into account every factor of the clinical administration on which the result of treatment depends—and these usually number five or six instead of one alone, as considered by the theoretical Brownell. His exposition of the alleged value of the E. M. F. at the electrodes, or the watts received by the patient, or of any other feature of the dose of a high tension induction coil current from the circuit of which a specific number of ohms of rheostat resistance has been cut out imparts nothing to the interpretation of the clinical facts. His attempt to discredit my method is preposterous and silly. If he does not appreciate his blunders it is useless to reason with him, and argument is unnecessary when the apparatus for actual test is at hand.

The reasoning by which he strives to support his proposition is based solely upon hypothetical premises, of which the true facts are unknown to him or to anybody else. His criticism is offensive in manner, discourteous in tone, false in logic, in error in its alleged facts, unfair in its presentation of my text, and asserts that I say what I do not. Had Brownell displayed any disposition to take courteous issue with me on matters of opinion, I would have taken no exceptions to either his ignorance or errors. Where mental astigmatism ends and bump-tious ignorance begins I care not, but the manner in which he shuffles and cuts Ohm's law to suit his peculiar style of debate would put him out of court in any reasonable discussion. He crowns his Quixotic tilt at my practical and reliable substitute for a direct method of dose

measurement and registration, by declaring that a system which "permits of such vast errors as are shown above is not worthy an instant's consideration." The "vast errors" he shows are his own, not mine. His curt conclusion is as fallacious as the argument it crowns, and the editor who not only admitted his letter to the columns of his journal, but deliberately assumed the responsibility for the averments it contained, owes an apology to his readers for what, in effect, is an attack upon the intelligence, reputation and veracity of a physician whose professional good faith is concerned in vindicating the reliability of a method of electro-therapeutic technique which he has originated and described.

865 Union street, Brooklyn.

P. S.—In taking a final glance at Brownell's "new electric theories" it seems to me that one of the most ridiculous things in his position is his laboring to prove the truism that when resistance is cut out of part of a circuit the current will be distributed through the remainder of the circuit. Of course, it will, or else there would be no circuit left—or the current would stand still, which is a contradiction. If a horizontal pipe ten feet long contains a body of water distributed throughout its length and two, four or seven feet of the pipe is cut off, without removing any water, the fluid must back up and increase its depth in the remainder of the pipe "in exact and equivalent proportion" to the length cut off. Brownell evidently discovered this truism in some way, but he thinks it is too deep for me, and he bases much of his freakish criticism on this assumption. He objects to my position that the current will increase in the part of the circuit between the applied electrodes in exact proportion as the resistance in the rheostat is reduced, but, inasmuch as the total value of the current is unchanged when the three inches of tube is cut out of conduction the value must be distributed in the remainder of the circuit in proportion to the capacity of its parts. As the tissues between the electrodes are part of the circuit they obviously and undeniably must receive their exact proportions as stated by me. To reach down to the level of such rudimentary reasoners as Brownell it would have been necessary to further state the equally obvious truism, which I omitted, that the rest of the circuit got its share also; but life is short, and unless common knowledge of fundamental axioms is taken somewhat for granted by authors and critics there will be no time to explain things less trite but possibly more interesting to readers than a reiteration of the alphabet they already know.

AUTHOR.

Book Reviews.

SYPHILIS IN THE MIDDLE AGES

AND IN MODERN TIMES. By

Dr. F. Buret, Paris, France. Translated from the French, with notes, by A. H. Ohmann-Dumesnil, M. D., Professor of Dermatology and Syphilology in the Marion Sims College of Medicine. Being Volumes II and III of "Syphilis to-Day and Among the Ancients," complete in three volumes. 12 mo., 300 pages. Extra cloth, \$1.50 net. Philadelphia: The F. A. Davis Co., Publishers, 1914 and 1916 Cherry street.

In the book that lies before us we

have the results of three years' work and careful study.

While the original is written in a most attractive manner, its every page shows evidence of most thorough research and clear deductions from all available documents.

As a handy history of that protean disease, syphilis, has been a long-felt want in the English language, we must be grateful to Professor Ohmann-Dumesnil for giving us one that, in his magnificent translation, fully equals the original.

The press work of the publishers is too well known to require comment.

Correspondence.

WAYSIDE NOTES.

Ernest B. Sangree, A. M., M. D.

At the present day we read, with surprise and amazement, thank Heaven, of the religious superstitions and intoleration of a few hundred of years back, of the beliefs in witches and witchcraft, of demons and the proper methods of exorcising them, of conversions by fire, torture and the sword.

Happily those days can never come again; but may we not fondly hope that the moralist of a hundred or two years hence will not similarly read with amazement of the medical credulities and superstitions of this otherwise fairly well enlightened age?

Will it not seem strange to him that a race whose scientific knowledge has altered the face of the earth, and who, the records will show, persistently sought after truth, in every other direction, willingly worshiped the lie in medicine. But when such men as

our intelligent railway princes, skilled lawyers, and, for instance, such a generally brainy man as Chauncey Depew, are willing to publish themselves as having been greatly benefited by a rheumatism ring, what are we to expect of the common herd?

Yesterday I went to see the "vita-pathic" doctors' exhibition. They advertise to cure anything, simply by laying their hands on the patient. A large hall was crowded to its utmost with perhaps two thousand people, some of whom had stood in the cold and wet for two hours, on the step outside, so that they might be first when the doors were opened, and thus get up for certain on the healers' platform.

Indeed, about one-fourth of the audience tried to get on the platform, and had actually to be driven back. These frauds then took one by one the several people they had

on the stage for exhibition purposes.

Paralytics, rheumatics, the deaf, people with tumors; every one, without exception, was promised a cure; there was no failure possible. A few rapid passes of the vitapath's hands over eyes, head, down arms and legs, and the patient was told to walk; at the same time being assured that he had no more pain, or whatever else the malady may have been. Did the patient maintain that he still had pain, then it was a most obstinate case, and would require several treatments to entirely eradicate it.

But as his chances of getting upon

the platform again were rather limited, the sufferer as well as all the other gaping-mouthed people, were told where the office was, and the hours in which the healers could be found.

Of course, the craze can last a comparatively short time, but in that period these miserable fellows will pick up from the credulous sufferers many a pretty penny.

"Yes," remarked the female dispensary patient, glibly, "His arm was either broken or fractured; I don't know which."

Current Medical Literature.

CELERY AS A CURE FOR RHEUMATISM.

New discoveries—or what claim to be discoveries—of the healing virtues of plants are continually making. One of the latest is that celery is a cure for rheumatism; indeed, it is asserted that the disease is impossible if the vegetable be cooked and freely eaten. The fact that it is almost always put on the table raw prevents its therapeutic powers from becoming known. The celery should be cut into bits, boiled in water until soft, and the water drunk by the patient. Put new milk, with a little flour and nutmeg, into a saucepan with the boiled celery, serve it warm with pieces of toast, eat it with potatoes, and the painful ailment will soon yield. Such is the declaration of a physician who has again and again tried the experiment and with uniform success. He adds that cold or damp never produces, but simply develops, the disease, of which acid blood is the primary and sustaining cause, and that while the blood is alkaline there can be neither rheumatism nor gout. English statistics

show that in one year (1876) 3640 persons died of rheumatism, and every case, it is claimed, might have been cured or prevented by the adoption of the remedy mentioned. At least two-thirds of the cases named heart disease are ascribed to rheumatism and its agonizing ally, gout. Smallpox, so much dreaded, is not half so destructive as rheumatism, which, it is maintained by many physicians, can be prevented by obeying nature's laws in diet. But if you have incurred it, boiled celery is pronounced unhesitatingly to be a specific.

C. M. J.

SLEEP FOR CHILDREN.

A German specialist says: "Nature has recently pleaded for giving children more sleep." A healthy infant sleeps most of the time during the first few weeks, and in the early years people are disposed to let children sleep as they will. But from 6 or 7 years old, when school begins, this sensible policy comes to an end, and sleep is put off persistently through all the years up to manhood and womanhood. At the age of 10

or 11 the child is allowed to sleep only eight or nine hours, when its parents should insist on its having what it absolutely needs, which is ten or eleven at least. Up to 20 a youth needs nine hours' sleep, and an adult should have eight. Insufficient sleep is one of the crying evils of the day. The want of proper rest and normal conditions of the nervous system, and especially the brain, produces a lamentable condition, deterioration in both body and mind, and exhaustion, excitability and intellectual disorders are gradually taking the place of the love of work, general well-being and the spirit of initiative.

—New York State Med. Jour.

IODINE IN DERMATOLOGY.

Good results are obtained from its topical use in ringworm, alopecia circumscripta and tinea versicolor. In ulcerative stomatitis, fungous gums and various chronic anginas, painting with tincture iodine is an efficacious procedure attended by no inconvenience.—Comby.

NEPHRITIS.

I advise the treatment of nephritis by inunction of an ointment of pilocarpine nitrate—a procedure advised by me in joint disease in 1882. I in this way secured a purely local diaphoresis with a minimum dose of alkaloid, and without the inconveniences and dangers which sometimes attend its subcutaneous injection.—Molliere.

A MALPRACTICE SUIT.

A malpractice suit recently decided in Milwaukee, Wis., is of interest in several particulars. The trouble grew out of the accidental leaving of a rubber drainage-tube in the pleural cavity. A physician, the defendant in the case, was treating a young man, aged 16 or 17 years, for empyema. An operation had been performed—a resection of one rib—and drainage provided for by means of two properly placed tubes; these were secured in position by two

silk stitches, each stitch passing through a tube and the skin. The wound discharged freely for several days. Upon one occasion, in dressing the wound, the doctor, having gathered up the soiled gauze and thrown it in the stove, noticed that one of the tubes was missing. The dressing had been removed in such a way as to lead him to think that the tube might possibly have been thrown into the stove along with the soiled dressings. Examination with probes and forceps failed to locate the tube in the empyemic cavity. The gauze was burning or burned, and it was difficult to decide positively where the missing tube was. Another complicating circumstance was the fact that, on the day previous to this, the dressing had been changed by the mother of the patient and in the absence of the doctor. Under these circumstances it was not deemed best to enlarge the wound or make other incisions to look for a tube that might have been thrown into the fire or otherwise lost outside the boy's chest. The wound healed in about the usual time, and convalescence seemed fairly established. Some months later, however, there was a slight purulent discharge through a fistulous opening in the wound, and the boy was told that a second operation would probably be necessary.

The patient then consulted a second physician, by whom he was sent to a hospital and operated upon. Resection of three or four ribs was deemed necessary, and in the discharge thus liberated was found the missing drainage-tube. The patient recovered, and suit was then brought against the first physician for \$20,000, claiming damages for long illness and permanent deformity.

The case was tried three times. In the first trial the jury did not agree; in the second the plaintiff was given a verdict for \$2000; in the third, the Judge threw the case out, on the ground that the plaintiff had not shown in the trial that his illness and disability were due to lack of reasonable skill and care on the part of the first physician.—Med. and Surg. Reporter, Nov. 20, 1895.

German and Italian

Translated by DR. F. E. CHANDLER.

POISONING BY SUB-NITRATE OF BISMUTH USED AS A DRESSING POWDER.

This drug is often used for dressing burns and wounds, and Drs. Gaucher and Balli have noticed unfavorable symptoms following its use.

The most characteristic symptoms are those of a more or less intense stomatitis.

Digestive disturbances sometimes occur, principally dysphagia, vomiting and diarrhea. The urine may be darkened and contain albumin.

This action of the drug is curious, because it may be given internally in almost any dose, without causing the least systemic or local disturbance.

—Revue Méd. de Louvain.

INFANTILE GONORRHEA.

Dr. Fischer, of Altona, has for two years carefully examined all cases of infantile gonorrhea that came into the hospital. He found 54 cases of vulvo-vaginitis, and 50 of these were of specific origin.

Ten of the fifty children were infected outside the hospital. Of these, one had been assaulted; two others had older sisters who had been affected; the mothers of four of them were suffering from gonorrheal discharges. A little daughter of an innkeeper was thought to have contracted the disease from the closets, and two children came from another hospital, where they had been endemically infected.

From these data the conclusion is easily drawn that infantile gonorrhea is rarely caused by rape; but usually is communicated by some member of the family; by the servants, or by some person stopping in the house. In this way may be ex-

plained its appearance, epidemic and endemic, in boarding schools and hospitals. In the children's hospital in Altona gonorrhea has been endemic for years.

Usually this disease made its appearance after the arrival of a child suffering from it. Isolated cases existed before. The method of propagation could never be determined.

According to the statistics given in his article, gonorrhea was more common in children under six years of age than in older ones. As to their general health, our author confirms the observations of Cohen-Brach—that it is not the feeble, scrofulous and rachitic children that are usually attacked by the disease. On the contrary, the children brought to the hospital were mostly well-developed and healthy.

Fischer confirms the statement that infantile gonorrhea varies in duration between several weeks and several months. His treatment consisted in rest in bed, baths, often with the addition of permanganate of potash, and local ablutions, with a 1 to 2 p. c. solution of zinc sulphate several times daily.

Deutsche Med. Wochenschrift.

CHLOROSIS.

Dr. Charrin advances the theory that chlorosis is a menstrual or genital auto-intoxication.

At the time when the menses are due the toxic quality of the serum is on the increase. Nursing women who menstruate notice at this period diarrhea and eruptions in their nurslings; at this period fever and herpes are not uncommon in many women; then the flow commences and everything passes away, the headaches cease, the muscular pains disappear, the appetite returns and the

symptoms of poisoning are gone.

On the other hand, experimental researches, very incomplete as yet, seem to indicate analogous conclusions.

Charrin thinks that the menstrual function purges the system of certain poisons; the genital organs, then, have an eliminative action.

If, under the influence of heredity, of scrofula, of tuberculosis, the impoverished tissues are insufficiently developed, this lack of development affects the genital organs equally with the others; they fulfill less admirably their duty of elimination.

On the other hand, during the first years, the amount of body waste is small; at puberty it increases rapidly.

At this period the imperfection of the undeveloped cells becomes evident; the products of the metabolism augment suddenly, and are badly eliminated; there, then, is a first cause of auto-intoxication, for it is well known that the more these products are metamorphosed or oxidized, the less injurious they are.

The small calibre of the mesenteric and pulmonary arteries adds to the imperfection of these exchanges.

To these general causes of auto-intoxication comes now another and characteristic factor—the obstruction of the depurative genital outlet, which cannot carry off the toxic substances destined to be eliminated this way.

—Gazette Hebdomadaire.

TUBERCULOSIS AND POVERTY.

Dr Leon Petit says that if two maps of Paris were prepared, one showing the poorest part of the city, and a second representing those wards (arrondissements) where tuberculosis is most prevalent, we should find that one was nearly identical with the other.

The rich wards—8th, 9th, 16th—are those in which the fewest cases of tuberculosis are to be found.

The poorest wards—13th, 19th, 20th—are those where phthisis is most prevalent.

How many deaths from tuberculosis are there yearly?

In the 13th ward (the poorest)... 812

In the 8th ward (the richest)... 178

It is the duty of the municipality to alleviate, as far as possible, the effects of poverty. Considerable may be done; the example of Budapesth is here very much in evidence.

The capital of Hungary, which is growing with the rapidity of an American city, has attracted from all quarters of the country many social elements that are miserably poor. These new-comers, destitute of the most elementary notions of hygiene, are in the utmost destitution.

For some years the authorities have endeavored to improve the state of things.

Results have not been wanting. From 1884 to 1888 phthisis carried off 640 of every 100,000 inhabitants; from 1889 to 1893 this figure had fallen to 500.

—Bulletin mensuel, etc., Jan., 1896.

INTRAVITAL SOFTENING AND FORMATION OF CAVITIES IN THE SUPRARENAL CAPSULES.

PROF. M. V. ODENIUS, OF LUND.

Eustachius discovered the suprarenal capsules and gave them the name of "glandulae quae renibus incumbent;" Casserius called them "renes succenturiati;" Caspar Bartolinus (1641) describes them as being hollow and containing a dark fluid. He thought that these organs were the probable place of formation of the "atra bilis," and, therefore, gave them the name of "capsulae atrabiliariae."

Subsequent anatomists seem to have considered that the presence of a cavity in the suprarenal capsules was a normal condition and several of them, Valsalva particularly, tried to find an efferent duct. Heller found in most cases a "vera cavea," but was inclined to regard this more as an intracapedinum than as a cavity with its own walls.

In the beginning of this century Meckel (1820) advanced the following opinion that has a great similarity

to the modern idea. Virchow, Heule and Orth consider it to be a post-mortem change. Author is of the opinion that the cavities may form during life and brings two cases to support his views.

—Nordiskt Med. Arkiv.

Professor Roentgen was summoned to Berlin by the German Emperor, who desired to hear of his wonderful discovery. After the conference, he was made a Knight of the Order of the Crown.

—Progres Medical.

Which translated into American means that William II gave him the third-class decoration of a third-class order for a discovery that is of inestimable value to science.

Had Professor Roentgen written his name with a "Von" and been colonel of a regiment of soldiers, he would not have been treated so shabbily, but a man of science and a commoner—bah!

LITHIUM BROMIDE IN INFLAMMATION OF THE KIDNEYS.

(From Medizinische Novitaten.)

Dr. Polakow has had excellent results from the use of this drug in 22 cases. Part of these were suffering with acute and part with chronic parenchymatous nephritis. Bromide of lithium was, in his hands, a safe and powerful diuretic, reduced the amount of albumin and caused often disappearance of the edema, and this while having a mixed diet and following no other plan of treatment.

Professor Hajak, of Vienna, has declared that smokers are less liable to diphtheria and other throat diseases than non-smokers in the ratio of 1 to 28. The learned Dr. Schiff also gives us to understand that smoking is always positively forbidden in bacteriological laboratories, because it is known to hinder the development of the bacteria.

The action of the drug was more pronounced in acute than in chronic cases, and acted well in three cases of puerperal nephritis as well as in one of the puerperal eclampsia.

[Rp. Lith brom.	1.5
Sodii bicarb.	4.0
Aquae dest.	240.0
Tr. menth pip.	2 drops.

Take three-fourths tablespoonful daily.
—Aertzl Rundschau.

RAPID AND SURE DISINFECTATION OF INSTRUMENTS.

Porth (Deutsche Militarärztl Zeitschrift) says that all instruments may be perfectly cleaned and rendered aseptic by covering them with collodion and then removing this with acetic ether.

—Deutsche Med. Wochenschrift.

TETANUS.

Dr. L. Oscherowski reports a case of tetanus cured by subcutaneous injections of carbolic acid. The tetanus was caused by a gunshot wound of the leg. On the sixth day in the hospital light trismus; on the tenth day, very severe trismus; on twelfth day, general convulsions and tetanic twitchings. Morphine, opium, chloral had absolutely no effect; spasms increased in frequency and death was expected. On twentieth day injections of a solution of 0.6 acid carbol. in 30.0 aquae dest., 12 minims, every three hours. Two days later, improvement. On thirty-fifth day patient was discharged cured. Twenty-eight injections were given.

—Petersb. Mil. Med. Journal.

TROUBLES IN THE COMMUNITY.

The coal dealer dies of colitis;
The twine-maker had the chord-ee;
The farmer's attack of oat-itis
And rye-neck was painful to see;
The wheelman went blind with cycitis,
The bridge-builder suffered from piles,
The servant girl had Sal-pingitis,
And the cook was all covered with b'iles.

—Southern Med. Rec.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

HOT WATER IN SURGERY.

Most people drink too little water. Five pints daily is the normal quantity required for flushing the system and preserving health. If every adult would drink two or three quarts every day many other troubles besides constipation, indigestion, catarrh, insomnia and nervousness would be overcome and prevented. It is the diluent and cleansing properties of the water drunk at mineral springs, quite as much as the contents, that is the health-restoring influence which works such marvels upon the chronic invalids who resort thither.

Swollen and inflamed parts subside under the use of hot water applied as a poultice; in fact heat and moisture are the only elements of virtue in poultices.

Insomnia is more relieved by a hot bath on going to bed—even in the hottest weather—than by any other remedy.

A foul or riotous stomach, or an obstinate case of retching after anesthesia, or during pregnancy, will always receive kindly and retain a glass of very hot water sipped gradually, when nothing else can be tolerated.

In gynecology hot water injections 120 degrees Fahrenheit, are now recognized as a most important remedial agent in the treatment of acute and chronic inflammation of the internal female sexual organs, administered with a syringe that can fill the expanded vagina to its capacity to hold it and retaining it there as long as possible.

Hot water applications, externally or internally, to hemorrhoids we all know to be followed by excellent results in relief of distress and suffering. They are also of inestimable value in impaction of the bowels, in fevers, in constipation, also in the

pain, itching, tenesmus and sphincter contraction resulting from hemorrhoidal turgescence.

In short there is no remedial agent known to modern medicine and surgery that equals hot water in its good effects upon the system; but its simplicity, cheapness and availability lessen its value to many unthinking people who would appreciate it more highly if it could be bottled up and sold at a high price under its true appellation "the Elixir of Life."

—Journal of Official Surgery.

SURGICAL DISEASES OF CHILDREN.

The subject of the radical cure of hernia in children continues to receive much attention. Both as regards the selection of cases suitable for operation and the relative advantages of the different methods. In the discussion at the London meeting of the British Medical Association, the consensus of opinion was in favor of operation in children of more than one year old, when any difficulty occurs in the retention of the hernia with a truss. Among the many practical points insisted upon by the different speakers in the management of hernia in childhood were the careful regulation of the diet, the treatment of phimosis by circumcision, and the advantages of the simple Berlin-wool truss in infants under nine months old. Macewen's operation was especially advocated, and as far as practicable the recumbent position for several weeks afterwards was advised. Schonfeldt (*Archiv für Kinderheilkunde*, 1895, p. 66), after a full consideration of the subject, comes, amongst others, to the following conclusions regarding operations for inguinal hernia: 1. In all reducible hernia an attempt should be made to bring about a cure by the

use of a light truss. 2. The association with ectopia testis may render the use of a truss impossible and be an indication for operation. 3. Operation should be performed in cases of very large scrotal hernia, and in all cases in which considerable difficulty is met with in the treatment with a truss.

—Practitioner, Jan. '96.

CONTRIBUTION TO THE STUDY OF ADENOID VEGETATIONS.

—From the Journal of Laryngology.
Dr. Y. Arslan, Padua.

Amongst 4080 patients suffering from affections of the nose, throat, or ear, 426 had adenoid tumors in the naso-pharynx. Of these, 69 per cent. presented symptoms of nasal obstruction, 37 per cent. suffered with tonsillitis or pharyngitis, 59 per cent. had ear complications, of whom 110 were cases of suppurative otitis, and 142 were cases of deafness without suppuration. Amongst six deaf mutes affected with adenoid vegetations, two were benefited by their removal. Other complications were noted, such as bronchitis, laryngeal spasm, night terrors, stammering, nocturnal enuresis, and convulsive attacks. A case of Jacksonian epilepsy, thought to be of central origin, soon disappeared after operation. Of the 426 patients, 222 were submitted to operation. Of these, 125 were completely cured, 50 improved, and 47 were lost sight of. In only seven cases was a second operation called for.

From these complete statistics I am able to draw some conclusions both as to etiology and treatment. patients I was able to note traces of hereditary. Dampness and other causes were of secondary importance. As regards direct complications, the operation is certain in its benefit. For reflex complications, the result is not so positive. It is advisable to operate even when the hypertrophied masses are of small dimensions. With a little patience, posterior rhinoscopy can be carried out in at least 74 per cent. of the

cases. Disappearance does not always take place with age, for the growths were found in patients whose ages varied from 20 to 40.

Treatment consists in complete removal of all the hypertrophied masses. The operation should be completed at one sitting, so as not to expose the patient more than once to the consequences of an operative procedure, even although this is of no great moment. As already remarked, of the 222 cases treated, only once was it necessary to repeat the operation.

General narcosis should be employed, otherwise a simple operation is rendered complicated, long, and brutal, especially as the minority of our patients are children, in whom it is useless to expect complete docility. Besides, we require muscular relaxation of the mouth, palate, and naso-pharynx, in order to be able to work satisfactorily. The employment of cocaine is insufficient. Of the various anesthetics, I give the preference to bromide of ethyl, which is, for short operations, incomparably superior to chloroform and ether. Indeed, bromide of ethyl is rapid and certain in its action; it is harmless in the dose employed (10 to 20 grammes); it leaves no disagreeable consequences. The patients are able to return home afterwards by themselves, and they have neither vomiting, headache, nor malaise.

A CASE OF SPINIA BIFIDA OCCURRING IN THE CERVICAL REGION.

The unusual occurrence of spina bifida in the cervical region may be of interest to some of your readers, and so form an excuse for my encroaching on your valuable time and space.

On June 19, 1895, I attended Mrs. B. in her first confinement, when she was delivered of a full-term female child, the labor being abnormal. At the birth of the child I noticed on the back of the neck a tumor which was about the size of a tangerine orange, slightly constricted at its base and depressed at its summit;

the skin covering the tumor was normal, and plentifully covered with hair at the base, but became thinner as it spread over its surface, and at the apex was thin, glistening, and bluish-white in color, and much wrinkled; the tumor could be emptied of its contents by pressure. The child died 12 hours after its birth. During its short period of life it had (the nurse informed me) several fits, the characteristics of which I am unable to describe, as I did not happen to be present at any of the attacks. I had the opportunity of making a post-mortem examination, and found the following conditions: The tumor communicated with the interior of the skull by passing through the foramen magnum and an opening in the neural arch of the atlas. The foramen magnum did not appear to be unusually dilated, the neural arches and formation of all the other cervical vertebrae being normal; neither was there any abnormality of the occipital bone, the torcular Herophili and the sinuses being complete. Spina bifida of the lumbosacral region is fairly common, but becomes rarer the higher the situation. In the Museum of the Royal College of Surgeons, amongst the specimens of the malformation, there is a specimen of a ligatured spina bifida occurring at the sixth and seventh cervical vertebrae; but I can find no record of a case occurring above this position, except accompanied by hydrocephalus or considerable malformation of the skull. In this case there was no other abnormality in the skull or elsewhere.

Robert Edwards, M. R. C. S., L. R. C. P., in the British Medical Journal.

CONTRIBUTION TO THE STUDY OF A FORM OF HEMATURIA OF TUBERCULAR ORIGIN IN THE KIDNEY.

By H. M. Aubinsaw, in *These de Paris*,
December, 1895.

Hematuria is a frequent symptom of renal tuberculosis; in fact it is often the first symptom.

It is characterized by its sponta-

neous onset, its short duration—usually from three to four days—frequent relapses and increasing intensity.

The author has quoted freely from MM. Rontier, Pousson, Tuffier, Czerny and Alberan. This type of hematuria may sometimes be so abundant as to greatly exsanguinate the patient.

The author states that the presence of Koch's bacillus removes all doubt in diagnosis, but its absence does not always prove that tuberculosis is not present.

Hemorrhage from calculus is easily excluded, because movement of the body does not aggravate it. In hematuria of a malignant origin blood seldom escapes over a long period without the presence of a tumor being made manifest. In the hematuria of tropical climates the presence of the filaria hominis sanguinis will exclude tubercular disease.

The greatest difficulty is met in differentiating these conditions attended with hematuria, first described by Lancereaux, as of a nervous origin. Senator has described a hematuria of a constitutional origin in hemophilia, or bleeders.

The author recognizes two sources of infection in this malady; one through the blood and the other through the urinary passages.

The hemorrhagic form of renal tuberculosis is always a serious form, which may render a nephrectomy an operation of urgency.

When the bleeding is moderate we may strive to arrest it by palliative measures. The author concludes his valuable paper as follows:

1. That tubercular disease of the kidney is primary and unilateral.

2. That tubercular disease of the kidney may first manifest itself by a copious hematuria.

3. The abundance and frequency of hematuria may necessitate a nephrectomy.

4. When indications point with certainty to extensive disease of the kidney, it should be removed in order to avoid the risk of general infection.

TUMORS OF THE SUPERIOR MAXILLARY.

By M. Hammer, Gazette hebdomadaire de Med. et de Chir.

The author bases his report on 22 cases which he has treated. He says that these growths are often very insidious in their onset. So latent that they may be far advanced before the patient is aware of their presence. They commonly commence in cavities quite inaccessible to exploration, and are only manifest when they begin to encroach on the skin or mucous membrane.

In all those cases in which we suspect a deep-seated tumor of the superior maxillary, we should carefully explore the nasal passages, the vault of the palate, the pharynx and post nasal space. When the configuration has altered and the osseous walls impinge, we will find by the use of the needle that the bone has become more vascular and is much more friable than normal.

From the prognostic point of view those sarcomata with small cells are the most malignant; those with intermediate, hyaline substance are less so; the fibro-sarcoma with giant cells the least. The endotheliomata progress slowly and often undergo cystic changes, and are but slightly malignant. Epitheliomata here are no less malignant than sarcoma.

TREATMENT OF CANCER OF THE STOMACH.

By Queen, Revue de Chir., No. 10, 1895.

If cancer is seated at the pylorus an exploratory laparotomy may be immediately followed by an extirpation of the neoplasm.

Sometimes, in some varieties of disease, where there is much infiltration into surrounding organs an excision is not justifiable. In some forms, although removal of the growth is impracticable, the stenosis which it produces may make a gastroenterostomy desirable. The operator ad-

vises this procedure to be effected in two operations. In all cases of operations on the stomach it is of the greatest importance that they be performed rapidly, and all precautions be observed to provide against a considerable loss of blood.

THE TREATMENT OF CARBUNCLE.

Quite twenty years ago Sir James Paget published his now classical lecture on this subject, in which he stated that "cases uncut heal more readily than those cut;" and further, that "carbuncles, if not divided, not infrequently suppurate only about their centres and slough only in their central parts, and the borders clear up by the softening and dispersion of the inflammatory product in them. In some cases they completely abort." It is my belief that, if seen before the softening takes place, resolution can generally be effected by pressure combined with the application of iodine, and that in any case this plan of treatment gives the best results obtainable. Iodine is, of course, a very old remedy, and has, I fancy, fallen into disrepute through an error in its mode of application. The weak tincture has been used instead of the strong liniment. It has possibly been somewhat the same with regard to pressure, for we are told in Holmes' "Surgery" that "the treatment by pressure (with plaster), as Dr. O'Ferrall prescribed, has fallen into disuse." It is doubtless in very many cases difficult to apply pressure effectively, but when the carbuncle occurs on a limb I can confidently recommend the following treatment: Paint the carbuncle and the skin immediately surrounding it freely with iodine liniment, and over this place a thick pad secured firmly by means of an elastic bandage. The immediate relief this gives is very marked, and the patient is able to go about his business as usual.

—Dr. Maberly in Brit. Med. Jour.



Miscellany.

Dr. John S. Billings, late Deputy Surgeon General, United States army, on the evening of November 30 was presented with a check for \$10,000, duly inclosed in a silver box, bearing the following inscription: "From 259 physicians of the United States and Great Britain, in grateful recognition of services to medical scholars." The services here alluded to was the completion of the Index Catalogue of the Library of the Surgeon General's office, Washington, D. C.

—Atlanta Med. Jour.

The Consolidated Library of New York—consisting of the Astor, Lenox and Tilden libraries—has succeeded in securing the services, as librarian, of Doctor Billings, who is one of the best bibliographers in the United States. As the Consolidated Library is the largest in North America (numbering about 375,000 volumes), with property and endowments amounting to \$8,000,000, there is certainly a great future before it under such distinguished management.

MEDICAL EXAMINERS' FEES.

Our esteemed contemporary, Puck, has a very striking cartoon, apropos of the Holmes case, upon the subject of insurance companies and their employes. The point of the cartoon is that these companies are so eager to insure everybody and to make money that they are careless in their methods and secure cheap and incompetent men as their agents. The recent general cut in the prices for medical examiners' fees we have already spoken of, and stated that it was, we presumed, a purely business matter, and if they, the companies, could get good men for a lower price they had the right to do so. But, in the light of recent events, it seems that it is not likely they can

get good men. Insurance companies had better try and economize in some other way than by cheapening the price paid to their agents for careful examinations of people that are to be insured.—N. Y. Med. Record.

AMPUTATION IN TETANUS.

Four cases of tetanus are reported in the Journal of the Academy, and the article is summed up in the following words: Amputation practiced in the healthy tissue puts the patient in the best condition for the cure of traumatic tetanus. In cases where it can be done without too extensive mutilation it should be resorted to with as little delay as possible—after the first symptoms. When, from injury, the vitality and proper function of a limb are compromised and the question of amputation arises, the appearance of tetanus should turn the balance in its favor.

VERMINOUS PERFORATION OF THE INTESTINE.

M. Rohmer presented specimen of intestine of a child, who was suddenly seized with a colicky diarrhea, quickly followed by death. On autopsy, the small intestine in several places was proved the seat of several small openings, in each of which a large lumbricoid was found engaged. The author found no evidence of pre-existing disease in the mucous lining of the bowel, and hence believes that the worms by their own action had pierced their way through.

M. Spillman took issue with this view, and declared that it was only when pathological conditions had led to intestinal perforation, that lumbricoides could make their way out into the cavity of the peritoneum.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

STATISTICS OF VAGINAL HYSTERECTOMY FOR UTERINE CARCINOMA.

Schmid (*Centralblatt für Gynäkologie*, No. 43, 1895), reports the results of forty-two cases where vaginal hysterectomy was performed for carcinoma. Thirty were carcinoma of the cervix, seven carcinoma of the corpus uteri, and two a carcinomatous degeneration of myoma. Up to 1892 he had operated upon thirty-four cases, with the following results: Seven died through operation; seven are free from return of the disease, twelve have a return, and eight failed to answer his communication.

—University Medical Magazine.

DIGITAL EXPLORATION IN MIDWIFERY.

Crouzat (*Revue Obstétrique Internationale*), October 21, 1895, disagrees with certain German obstetricians who oppose digital exploration in normal labor and rely upon abdominal palpation. The diagnosis of normality may demand the introduction of the finger into the vagina. Crouzat's principles simplify digital exploration and guard against its dangers. Vaginal examination, he thinks, should be made as rarely as possible. One exploration at the beginning of labor and another immediately after the rupture of the membranes are usually sufficient. It is his practice to make the external parts antiseptic; the hands and forearms are then washed and brushed thoroughly. The nails must receive special attention. The washing is afterwards repeated in a 1:1000 bichloride of mercury solution. Great care in the introduction of the forefinger is strongly advocated. This should be dipped in sublimated vaseline and guarded by

the thumb and other fingers, whilst the hand is passed under the clothes and near the patient's thighs. On reaching the perineum the labia are parted by the thumb and middle finger. The forefinger is lastly introduced into the vagina without having touched any part of the patient or her clothes since the time it was made septic.

—Union Med. Magazine.

THE MANAGEMENT OF MISCARRIAGE.

Dr. George C. Barton, in a paper read before the Hennepin County Medical Society, said: Two methods present themselves, one being what is called conservative and the other the active plan of treatment. He discussed the two methods, and gave the reasons for his conviction as to which is the better. The two plans briefly stated are these: The one is to allow the placenta to remain and come away as best it may, and the other is to forcibly remove the afterbirth, completely emptying the uterus of all the secundines. In the first method of treatment a foreign body is left in the uterus which is liable to become septic at any time, and when it does a woman's life is put in jeopardy, or, if she escapes with her life, her health is almost sure to be permanently injured. Not only is she in danger of sepsis, but as long as the afterbirth is retained she is in danger of hemorrhage, which may be sufficient to terminate the woman's existence. In France this method is followed to a considerable extent. Tarnier is one who advocates it strongly, claiming that the womb should be allowed time to expel its contents. He points out hospital statistics in which he saw for-

ty-six cases of retained placenta after abortion and only one death, and that from pneumonia; but the death rate at a hospital in Florence, in which Tarnier's plan of treatment seems to have been carried out, shows a mortality of six per cent. Tarnier and Cazeau report a case as follows: "During the first five days the patient did very well, but on the sixth, and at 3 o'clock in the afternoon, a violent chill came on, which lasted an hour. This unfortunate lady died on the tenth day." All the advocates of this so-called conservative plan of treatment agree that in case there is any indication of sepsis, or even before that, when the lochia becomes offensive, the uterus should be emptied. The only dangers he can conceive of in the active plan of treatment are the introduction of septic material by the physician, which is inexcusable, and the danger of perforation of the uterus by the use of the curette. He is inclined to believe that, in many of these cases the curetting did not immediately follow the abortion, but was done to remove a decomposing placenta in a softened uterus. Granting that there have been accidents, the percentage of mortality from this cause is small as compared with the percentage of mortality in retained placenta. In the latter plan of treatment it is not only the death rate, but the injury to health that should count against it. We may have, as a result of a retained after-birth, septic endometritis and salpingitis, with poysalpinx; we may have uterine phlebitis; we may have septic phlebitis of one or both legs; we may have septic peritonitis or septic pneumonia or septic pleurisy, and many other conditions to which the absorption of septic material gives rise. This, together with the danger of a fatal hemorrhage, which is constantly present in a retained placenta, is, when set over against the fact that a few women have lost their lives by the uterus being perforated with the curette in the active, or radical, method of treatment, it seems, sufficient to decide the question in favor of the active method.

—The Med. Bulletin.

HYDROCELE OF THE LABIUM MAJUS.

According to Edwards, a prolongation of peritoneum may reach below the mons veneris through the inguinal ring, covering the round ligament. This peritoneal investment may become adherent above the ring, and a transudation of serum occur into the cavity formed. This condition is then known as hydrocele of the labium majus. He gives several varieties: 1. That in which there exists a patulous canal of nuck. The fluid is excreted from the peritoneal surfaces covering the ligament and is free to return within the general peritoneal cavity. 2. The sac may be entirely cut off from the abdominal cavity and dropsy occur in this closed sac. 3. The cellular tissue of the labium majus consists of two layers, which are prolongations of the superficial abdominal fascia. These two layers are considered the analogue of the dartos tunic, and between them a serous tumor may form. This is considered by some to be true hydrocele in woman. 4. The substance of the round ligament itself may be the site of a cyst. The gubernaculum of Hunter in the fetus becomes the round ligament in the female. This fetal structure is at first hollow, and there may be a persistence of this fetal condition which allows the formation of a cyst. Eisenhart has collated forty-eight cases of hydrocele in the female, and finds that twenty-nine were upon the right side and nineteen upon the left; he considers traumatism and congenital defect to be the most frequent causes. Smith believes that the disease is not so rare as is stated; during a period of four years he says, five cases have been operated upon in the Tottenham Hospital. The treatment of hydrocele feminina is operative. Expose the cyst by a linear incision, ligate the neck and enucleate. The wound is to be closed by superimposed layers as in the closure of hernia. Simple puncture of the hydrocele is of little avail.

—American Journal of Obstetrics, etc.

Prescriptions.

Alopecia after Fevers.—

R Alcohol $6\frac{1}{2}$ dr.
 Veratrin $7\frac{1}{2}$ gr.
 Tinct. benzoin 15 drops.
 Acid salicyl $6\frac{1}{2}$ grs.

M. S.: Apply locally.

—Kaposi.

Pruritus from Jaundice.—

R Ichthyl 10 parts.
 Spts. vin, rect. dil. 40 parts.
 Ether 40 parts.

M. S.: Apply locally.

Sycosis.—Apply two or three times daily as a wash with a cotton tampon a one per cent. solution of corrosive sublimate in ninety-five per cent. alcohol. To allay the irritation which may be produced cover at night with an occlusive ointment such as that of Hebra.—Tile, Bul. Med.

Nutritive Enema.—

R Water 150 grams.
 Dry peptone 10 grams.
 Yellow of one egg.
 Glucose 20 grams.
 Sydenham's laudanum 4 drops.
 —Tournier, London Med. Times.

TO AVOID IODISM.

Hardaway claims that the continued use of the following mixture does not produce iodism:

R Potassium iodide $\frac{1}{2}$ to 1 oz.
 Ammonia-citrate of iron 2 dr.
 Tinc. nux vomica 2 dr.
 Water $1\frac{1}{2}$ oz.
 Compound tinct. cinchona 2 oz.

One teaspoonful in water after meals.

—Med. Weekly.

TAR FOR HEMORRHOIDS.

The following mixture, applied night and morning to the nodule, will effect a cure in from four to twelve days:

R Wood tar 3 parts.
 Extract of belladonna 3 parts.
 Glycerine 30 parts.
 Rev. de Ther. Med. Chirurg.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

CRESALOL. — (Ortho-meta- and paracresol salicylates.) White bulky crystalline powders resembling salol. Insoluble in water, readily soluble in A., E., slightly in oils. More powerfully antiseptic than carbolic acid, though less poisonous and milder in physiological action. Intestinal antiseptics (para- the one most commonly found in shops), vesical catarrh and articular rheumatism. Dose 1 to 2 drs. daily in divided doses. Also applied externally like iodoform.

CRESOL IODIDE.—Very light, yellow powder, with disagreeable odor; readily soluble in A., E., C.

and oils. Insoluble in water. Adheres to hands, instruments, etc., like resin. Antiseptic, allaying inflammation in nasal diseases.

CRESOLS.—Higher homologues of phenol. More actively antiseptic and less poisonous. See trikresol.

CRESYLAL.—See Trikresol.

CROTON-CHLORAL.—See butyl-chloral hydrate.

CUTAL.—(Aluminum borotannate.) Light brown powder, insoluble in W., soluble on addition of tartaric acid. Contains tannin 76, aluminum 13.23, boric acid 10.71. Astringent antiseptic, externally Gonorrhoea, etc.

DATURINE, ALKALOID.—From *Datura stramonium*. Probably identical with hyoscyamine. The sulphate is usually employed.

DERMATOL.—(Bismuth sub-galate.) Odorless, stable, light yellow powder. Antiseptic siccative, vulnerary. As dusting powder, on wounds, ulcers, etc., in ointment or on gauze. Also intestinal antiseptic. Dose 30 grs. daily.

DESINFECTOL.—Analogous to Creolin.

DIABETIN.—Levulose, invert sugar. Recommended as a substitute for cane sugar in diabetes.

DIAMINE.—(Hydrazine.) Small colorless crystals, analogous to hydroxylamine hydrochloride, powerful reducing agent, poison to life of all kinds. Destroys mold, germs, bacteria, etc.

DIAPHATHERIN.—(Oxyquinaseptol.) Bright yellow powder, readily soluble in water. Non-toxic antiseptic application (1 per cent. solution) in wounds and purulent discharges in affections of the nose, ear, mouth, etc.

DIAPHTHOL.—Yellowish white crystals, slightly soluble in water. Non-toxic antiseptic.

DIGITALIN, GERMAN.—(Digitalin, Fr.) Not to be confounded with the French. White powder, freely soluble in water, dil. A, insoluble in strong A, E, C. Heart tonic, slows the heart beats, antiaphrodisiac, diuretic. Dose 1-64 to 1-32 gr., 3 or 4 times daily. Max. dose single 1-16 gr., daily 1-3 gr. Antidotes, tannin, nitroglycerin, later strophanthus.

DIGITALIN, FRENCH.—Not to be confounded with the German Digitalin, which see. Occurs in two forms, crystalline, and as an amorphous yellowish white powder, the latter being official in the French codex. Indications the same as for the German, but used in smaller doses. Dose 1-240 to 1-64 gr. 3 or 4 times daily.

DIGITALEIN, SCHMIEDEBERG.—Pale yellow amorphous powder, said to combine the properties of digitalin and digitoxin. Readily soluble in water and A.

DIGITOXIN.—The most poisonous of the glucosides of digitalis. In-

soluble in water, soluble in C, white tufts of acicular crystals. Dose 1-200 to 1-100 gr. daily.

DI- IODOFORM.—(Ethylene Periodide, Tetra-iodo-ethylene.) Yellowish white needles, almost odorless, decomposed by light. Insoluble in water, sparingly, soluble in A, E, very soluble in C, benzene. Contains 95.28 per cent. iodine. Substitute for iodoform.

DIPHThERIA ANTITOXIN.—(Diphtherine, etc.) Product of metabolism in blood serum, in the organism under the influence of diphtheria toxin. By intravenous injection either as prophylactic or therapeutic. Limpid liquids. Must be kept sterile and aseptically injected under the ribs, in the loins or the inner surface of the thighs. Various prices on application.

DITHION.—Mixed sodium salts of the two dithiosalicilic acids. Used by veterinarians in 5 per cent. solutions for irrigating wounds, as dusting powder or as 10 per cent. salve in harness sores, erysipelas and strangles. Excellent prophylactic in foot and mouth disease. Dose, 6 to 14 drachms mixed with the food.

DIURETIN.—(Sodio-theobromine Salicylate.) White powder of saline taste. Soluble in 1-2 hot water, remaining in solution on cooling. Contains 49.7 per cent. theobromine and 38.1 per cent. salicylic acid. Protect from the air. Diuretic, strengthening instead of depressing the heart. In dropsy, hepatic cirrhosis and various diseases of the heart and kidneys accompanied by edema. Dose, 15 to 20 grains 4 to 5 times a day. Incompatible with acids or alkalis.

DUBOISINE SULPHATE.—Yellowish hygroscopic powder. Cardiac and respiratory stimulant, mydriatic, sedative. More rapid and less irritant than atropine as a mydriatic. Applied in 1 or 4 to 500 solution. Dose, 1-320 to 1-60 gr.

DULCIN.—(Sucrol, Para-phenetol-carbamid.) White crystalline powder, soluble in 800 water, 25 A. Decomposed on prolonged boiling. 250 times sweeter than sugar; no untoward effects.

For Physicians' Wives

HINTS FOR HOUSEWIVES.

White lace and muslin curtains can, with a very little trouble, and at trifling cost, be tinted a delicate shade of ecru, pale pink, heliotrope or green by using colored starches.

* * *

To remove iron-mold stains from linen a little oxalic acid should be dissolved in water, and the stained part dipped in the solution, when the iron-mold will be found to disappear without injury to the fabric. The mixture may be kept in a bottle for any length of time, but it should be distinctly labeled, as it is a strong poison.

* * *

To remove paint from clothing, saturate it with turpentine until softened, and then wash out with soap and water.

* * *

Strong tepid soda water will make glass very brilliant.

CONCERNING EGGS.

Pour boiling water over frozen eggs and let them remain until the water is cold; they will then beat nearly as well as fresh eggs. Keep them frozen hard until ready for use.

To determine the age of eggs, dissolve a quarter of a pound of salt in a quart of cold water, and drop the eggs in one at a time. If a day old an egg will settle to the bottom; if three days old, it will float; if more than five days, it will rise above the water in proportion to its age.

To ascertain the quality of eggs, make a cone of stiff white paper, place the eggs to be tested, one at a time, in the large end and look through the small end toward the sun. If the contents look clear, the egg is good, though the shell may be discolored; if spots are seen it is not good.

Water forms about 70 per cent. of a fresh egg. This begins almost immediately to evaporate through the pores of the shell, and the air entering introduces bacteria, which causes the contents to deteriorate and in time to decompose. Place new-laid eggs in a wire basket, and immerse the basket five seconds in boiling water. A very thin coating of coagulated albumen is thus formed next to the shell; the pores can then be closed by rubbing the shell with a cloth dipped in linseed oil.

Eggs boiled twenty minutes are more readily digested than if boiled five. They are dry and mealy and more easily acted upon by the gastric juice.

The whites of eggs will froth more rapidly if very cold. A pinch of salt added helps to cool them in warm weather.

Eggs laid in March or April, if rubbed with vaseline, into which has been beaten a little salicylic acid, and packed in salt, will keep several months without perceptible deterioration.

A raw egg swallowed immediately is very effective in removing a fish-bone which has become lodged in the throat. The white of an egg is an excellent application for a burn. If mustard is mixed with the white of an egg a blister will seldom follow the application of the plaster.

Hoarseness and tickling in the throat are relieved with a gargle of the white of an egg beaten to a froth with a tumblerful of warm sweetened water.

An old but very effective remedy for an obstinate cough is to place two or three whole eggs in very strong vinegar (boiled down to increase the strength, if necessary). In three or four days the acid will have consumed the shells. Beat the mixture well and thicken with honey.

Take two tablespoonfuls before each meal.

The yolk of an egg is a very good substitute for cream in coffee, and will answer for three cups.

A raw egg beaten with a little pulverized sugar, half the quantity of cream or milk, is excellent for convalescents or elderly people. Very sick people can sometimes eat the yolk of a hard-boiled egg when the white cannot be eaten with safety.

The skin of a boiled egg, moistened and applied to a boil, will cause suppuration and relieve soreness in a few hours. It is also an excellent application for a sty or inflamed eyelids.

A plaster composed of the yolk of an egg and salt will often relieve pleurisy, kidney and neuralgic pains.

—Albany Cultivator.

REMEDIAL FOODS.

Celery is invaluable for those suffering from any form of rheumatism, for diseases of the nerves and nervous dyspepsia.

Lettuce for those suffering from insomnia.

Watercress is a remedy for scurvy.

Peanuts for indigestion. They are especially recommended for corpulent diabetics. Peanuts are made into a wholesome and nutritious soup, are browned and used as coffee, are eaten as a relish simply baked, or are prepared and served as salted almonds.

Onions are almost the best nerve vine known. No medicine is so useful in cases of nervous prostration, and there is nothing else that will so quickly relieve and tone up a worn-out system. Onions are useful in all cases of coughs, colds and influenza; in consumption, insomnia, hydrophobia, scurvy, gravel, kidney and liver complaints. Eaten every other day they soon have a clearing and whitening effect on the complexion.

Spirach is useful to those with gravel.

Asparagus is used to produce perspiration.

Carrots for sufferers from asthma.

Turnips for nervous disorders and for scurvy.

Raw beef proves of great benefit to persons of frail constitution, and to those suffering from consumption. It is chopped fine, seasoned with salt and heated by placing it in a dish of hot water. It assimilates rapidly and affords the best nourishment.

Eggs contain a large amount of nutriment in a compact, quickly-available form. Beaten up raw with sugar they are used to clear and strengthen the voice. With sugar and lemon juice the beaten white of egg is to relieve hoarseness.

Honey is wholesome, strengthening, cleansing, healing and nourishing.

Fresh ripe fruits are excellent for purifying the blood and toning up the system. As specific remedies, oranges are aperient. Sour oranges are highly recommended for rheumatism.

Cranberries for erysipelas are used externally as well as internally.

Lemons for feverish thirst in sickness, for biliousness, low fevers, rheumatism, coughs, colds, liver complaints, etc.

Blackberries as a tonic. Useful in all forms of diarrhea.

Tomatoes are a powerful aperient for the liver, a sovereign remedy for dyspepsia and indigestion. Tomatoes are invaluable in all conditions of the system in which the use of calomel is indicated.

Figs are aperient and wholesome. They are said to be valuable as food for those suffering from cancer; they are used externally, as well as internally.

Apples are useful in nervous dyspepsia; they are nutritious, medicinal and vitalizing; they aid digestion, clear the voice, correct the acidity of the stomach, and are invaluable in rheumatism, insomnia and liver troubles. An apple contains as much nutriment as a potato in a pleasanter and more wholesome form.

Grapes dissolve and dislodge gravel and calculi, and bring the stomach and bowels to a healthy condition.

Pie plant is wholesome and aperient; is excellent for rheumatic sufferers and useful in purifying the blood.

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Original



GENERAL CONSIDERATION ON THE PATHOLOGY AND TREATMENT OF NERVOUS DISEASES.

BY EDWARD C. MANN, M. D., F. S. S., NEW YORK.

There has been a great advance in the treatment of nervous diseases recently, attributable to the increased spread of knowledge, to the improved methods of medical teaching, to the closer attention paid to the anatomical investigation, and to more extended opportunities of medical research offered by the invention of the precise instruments for diagnosis in which our age has been so prolific. The introduction of the ophthalmoscope has thrown a much desired light into a heretofore dark chamber of cerebral pathology, enabling the physician to infer from the condition of the retinal vessels the existence of structural changes

in the cerebral arteries calculated eventually to lead to the host of diseases which may threaten the integrity of the vital and intellectual function or prove fatal perhaps instantaneously. With regard to therapeutic appliances a complete revolution has been wrought in the treatment of cerebral diseases, by the guidance of the scientific principles and instruments I have spoken of. Every neurologist will admit that in many respects, however, the pathology of cerebral disease is still involved in great obscurity, although modern physiological research and clinical experience have done much to remove many difficulties from our

path. We may have very serious cerebral diseases existing, and even reaching a fatal termination, without giving any appreciable notes of warning and unaccompanied by any pathognomonic symptom during life, to the physician, and on the other hand we may have apparently slight cerebral derangements, producing serious and alarming symptoms. The exact seat of cerebral disease is indicated more or less clearly according to its greater or less connection with those nervous fibres which control or direct the communications between the cerebral mass and those extreme objects with which our bodies are placed in relation. In a general way we may say that the posterior columns of the spinal cord, passing through the medulla oblongata, through the pons varolii, then through the ganglia called the optic thalami and the corpora striata are connected with the sensitive branches of the fifth pair of nerves; while the anterior columns, pursuing a similar course, are connected with the motor branches of the fifth pair and also with the third pair, the fourth pair, and the sixth pair, and the portio dura of the seventh pair and the ninth pair, all of which are exclusively endowed with motor powers. As we trace the nervous fibres of the brain downwards we find them successively passing through the corpora striata, the thalami optici, the pons varolii, and then crossing or decussating in the medulla oblongata, so that the fibres from the right side of the brain pass for the most part to the left side of the cord, and vice versa. The explanation is thus afforded of the fact that paralysis on one side of the body almost always denotes some disease on the opposite side of the brain, and it is also easy of comprehension that when the centre part of the motor or sensitive tract is affected, the paralysis will be on both sides. It is a fact not so generally known that when the seat of the disease is in that part of the brain which is not immediately in the track of the motor sensory nerves there may be no paralysis at all, although the lesion may be very serious and extensive. The great bulk of the hemispheres

are, so to speak, expansions or outgrowths from the different fibres of the spinal cord, and are, as it were, outside the motor and sensory tracts, or are only blended with them in a loose and general connection. I know of a case where there was in the right posterior lob of the brain, very near the surface, a large cavity as large as a hen's egg, filled with an apoplectic clot, where during life there was no paralysis in any of the limbs and no anesthesia, although the patient was carefully examined day by day for three weeks previous to death. The symptoms were sickness, vomiting, great pain in the head, the pupils contracted, bowels constipated, and great somnolence; the urine passed involuntarily. Nature was trying to effect a cure in this case, as a membrane was in process of formation on the circumference of the cavity and the clot was beginning to assume a yellowish tint. The reason there was no paralysis was, because the seat of the effusion was out of the track of the ordinary motor and sensory nerves. The general location of the apoplectic effusions is in one of the lateral ventricles, affecting the corpora striata or the optic thalami, which are both of them continuations of the motor and sensory fibres, proceeding upwards from the spinal cord. There are many circumstances which give us reason to hope for good results from treatment in some cases of brain disease, apparently of the most desperate nature. We may have symptoms indicating brain disease, and the brain perfectly healthy, or the brain may be affected functionally, and secondarily, the real seat of disease being situated elsewhere and of a transient or curable nature. I have seen many cases where convulsion, spasm or coma existed, while the brain was intact and where the local cause being removed, the brain symptoms disappeared entirely.

I have seen apparent apoplexy dependent on congestion of the kidneys and rapidly disappearing as such congestion was relieved. I have seen coma and convulsions vanish when an intestinal worm was expelled. I have seen cerebral congestion in wo-

men disappear as the menses appeared or reappeared, and many family physicians have seen spurious hydrocephalus disappear on the cutting of a tooth.

But even if we have actual disease of the brain, it does not follow at all that the case is incurable. Primary congestion of the brain is often relieved by remedial, dietetic and hygienic measures, and even after an apoplectic effusion has taken place, nature assisted by judicious treatment may accomplish a cure. Nature can absorb effused blood, leaving a cyst, and the brain may be restored to its healthy state. Certainly an attack of apoplexy followed by paralysis, is a very serious state of things, but life may be preserved and enjoyed for a great many years by judicious remedial measures and by keeping away all injurious influences from persons who have suffered an apoplectic attack. Such patients should be put on low diet, as a rule, and purgative medicine administered—I think there is nothing better than a drop of croton oil, followed by saline purgatives, with perhaps bleeding, if the attack is recent, the patient plethoric, the pulse full, hard and strong, and the breathing stertorous. In the most fortunate of these cases we shall find our patients much better, in full possession of their faculties, with regained use of the limbs, and we get a complete cure. As the tide of professional opinion has turned against the abstraction of blood in apoplexy, I would give the caution never to bleed if your patient is weak or anemic, or if there is a tendency to syncope; but for myself I would very quickly bleed a stout, plethoric man or woman to the extent of eight ounces, if the pulse was full, hard and strong, and the breathing loud and stertorous, and I should expect a beneficial result.

We may find hypochondriases, hysteria, vertigo, wakefulness or drowsiness, all produced by a long continued improper condition of the bowels, from imperfect action or a torpid condition of the secreting and expelling structures of the large bowel. If the descending colon does not work

well, we may get resulting quite violent and persistent nerve pains referred to the back, hips or groin; also certain forms of sciatica and violent lumbar pain. I very often find that vertigo, swimming in the head or giddiness are indications merely of a state of deranged conditions of the stomach and liver, or of disturbed heart's action, although vertigo may be due to serious brain disease. Persistent drowsiness is generally dependent upon some imperfect action of the digestive organs and mild purgatives generally relieve this troublesome symptom.

The symptoms of wakefulness and restlessness when your patient says he must be constantly changing his place or scene and cannot get into a composed state and cannot sleep, should, if it has lasted long, excite attention, and rest from business for a few weeks will, in an overworked man, perhaps, ward off impending mental disease.

The physician who is interested in cerebral physiology will find it a matter of interest to institute experiments on the regional temperature of the head under the different conditions of rest and intellectual activity. It will be found as a universal rule in such researches that the evolution of heat is directly in proportion to the intensity of mental action, and that the anterior portion of the left side of the head will show the rise more frequently and to a greater extent than any other region, both for intellectual and for emotional states. The best instrument to use is a thermo-electric apparatus.

Finally, I deem it of the greatest importance to thoroughly investigate the wonderful Roentgen's cathode rays of electricity, as I believe, from the experiments I have already made, but which I do not desire to make public until my results can be considered by scientists as something more than provisional, that we have in the Roentgen rays the potentiality of the destruction of disease germs on a scale that will be applicable to State or preventive medicine as well as to curative medicine or the cure of disease.

2184 Fifth Avenue.

VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL

BY THOMAS H. MANLEY, M. D., NEW YORK.

FRIGO STASIS OR THE INFLU- ENCE OF A LOW TEMPERA- TURE ON THE BLOOD CUR- RENT.

We have seen that extremes of heat suddenly arrest a flow of blood by a mechanical process, essentially destructive; more will be added to this feature later on; it is enough now to note that heat is a vitalizer of unequalled potency, capable of great restorative properties, inducing the most intense hyperamia, when not carried to the point of disorganizing tissue.

It is totally devoid of hemostatic powers without producing chemical changes.

Herein, where it is altogether unlike cold in its action, which congeals tissue, but does not disorganize or destroy, and hence, why the one agent has a wide range of application in the therapy of hemorrhage, with little danger of doing harm, while the thermal can or should only be utilized under exceptional circumstances.

It has been pointed out that one of the immediate local effects of intense cold on the blood is to congeal it, a sort of mechanical action, but there are many media or modes of action. One of the most decisive and prompt is through the sympathetic system on the heart and blood vessels. Ice over the precordia, the epigastrium, the hypogastrium or the spine, especially the upper cervical segment, will sometimes arrest an internal hemorrhage very promptly.

But it must be suddenly applied in order to produce shock and repression of vascular force. As the algid state sets in the escape of blood begins to diminish and finally ceases. Severe immobility of the body, iced

drinks internally, mental composure, lower temperature in the room all aid in favoring low, vascular pressure. Those who are suffering from hemorrhage are always excessively thirsty, owing to the sudden loss of fluids from the body.

Now, we may combine the internal administration of ice with its external employment. The temperature of the body may any time be quickly reduced two or three degrees by the free admission of iced fluids into the stomach and colon.

Besides the action on the vascular apparatus, cold here acts in favoring the coagulation of the blood and the contraction of those vessels at the seat of lesion, which have elastic fibre in their walls.

There are many situations in the body where the seat of hemorrhage is quite beyond the reach of surgical relief; moreover, there are two circumstances which forbid its being undertaken, even in accessible structures.

Pathological or traumatic hemorrhage into the brain substance is exceedingly difficult to arrest by mechanical means.

A considerable experience with various types of cerebral hemorrhage of a traumatic origin led me some years since, in an essay on this subject, to sound a warning note. ("The Dangers Attending All Intracranial Operations from Uncontrollable Hemorrhage Transactions of New York Medical Association," 1889, p. 317.)

My experience had taught me that in many of those cases of intra or extra meningeal hemorrhage, coincident with fractured skull, the dangers attending large blood clots were vastly less than those liable to follow their disturbance in dislodge-

ment by exploration; and, furthermore, that there was no good reason why a thrombus in the brain substance should not undergo disintegration and resorption within the encephalon, as well as in any other organ. Ice over the head in hemorrhage within serves a double purpose; first, in diminishing the quantity of escape, and, secondly, as a prophylactic against meningitis.

Cold applications in the manner described is indirect frigostasis, i. e., they are not applied directly over the site of hemorrhage as in an open wound, but combine in their action a vital and mechanical influence.

In excessive hemorrhage from the nose, the lungs or the rectum, by the prompt and intelligent utilization of frigorifics we may often succeed on their arrest without resorting to those surgical expedients which are always painful, may aid fresh shock to the system and demand, in order to be effective, both experience and skill. And, moreover, in timid patients anesthetics are required, all of which means the aid of assistants.

It is always a source of great satisfaction to successfully cure a patient through a surgical operation; but we are entitled to more credit if we can accomplish the same result without it.

With the cautious, conscientious surgeon, after many extensive operations, the possibility of a secondary hemorrhage is always a source of uneasiness until the processes of repair have begun.

The necessary shock attendant on a major amputation, joint resection or the tedious manipulation within a cavity leaves the patient greatly exhausted.

But after a time reaction sets in, and simultaneously with it evidence of a sanguinous discharge on the surface is manifest, or a deathly pallor with cool extremities point to internal hemorrhage. Under these circumstances the life of the patient depends on the clear discernment, the knowledge and skill of the medical attendant.

Any rough, ill-timed interference with this sinking, exsanguinated

patient may speedily cut short a life which might be saved, perhaps. And yet, with inaction, indecision or timidity all is lost.

Under these circumstances, if by the aid of frigorifics and other appropriate measures we may subdue the bleeding without alarming or disturbing the patient a great gain has been made. The making or the losing of a reputation in a village practice may depend on the course followed at this juncture.

The first practitioner—and supposing this to be a hemorrhage case of the type most commonly encountered—alarmed, terrified and “rattled,” sets the house in a ferment with preparations for a formidable operation and dispatching for a surgeon. A second is called in.

He may do little other than give a few words of assurance that there is plenty room for hope, perhaps; he takes a lump of ice, changes perhaps the posture of the patient and energetically applies cold. The hemorrhage is stopped, a life is saved and his reputation is made.

This indirect action of cold, as a hemostatic, though ample in many instances, of secondary and other hemorrhages, it must not be supposed, can supplant pressure or immediate ligation of an open vessel. It is only emphasized that when choice of selection permit it should be first tried.

Frigostasis was very generally employed in suppressing hemorrhage from mutilating injuries, from wounds and in operations until about the time antiseptics were first introduced. About that time Keith commenced to roast the stalks of pelvic tumors and Emmet commenced to staunch intra-uterine hemorrhage by boiling the endometrium.

It will be demonstrated here the fundamental difference in the action of heat and cold as a hemostatic, and, it is hoped, proved that while cold holds its own and has a large field as an agent to prevent bleeding, heat, except as a potential cautery, acting over a limited area, may be followed by serious consequences and should be condemned.

ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number).

CHAPTER VI.

TREATMENT.

Treatment may be divided into three heads:

First. Prevention or prophylaxis.

Second. Eradication of the vice when it is confirmed: treatment, properly so-called.

Third. Ridding the organism of diseases caused by it.

The first and second of these only need occupy our attention; the third is wholly in the domain of general therapeutics.

I need but say that if the malady due to onanism be recognized and its cause diagnosed, the physician must, first of all, suppress this primordial cause if he does not wish to see his treatment remain without result, and the disease continue its ravages as if nothing had been done to stop it.

PROPHYLAXIS.

How prevent masturbation?

The precautions necessary to achieve this result are: (A), physical; (B), social; (C), intellectual and moral.

(A)—Parents must see to it that the sexual organs of their daughters are made clean and kept so. Frequent washing of the pudenda will prevent the accumulation of smegma between the labia majora and the labia minora as well as under the prepuce of the clitoris.

This cleanliness will prevent itching and the various maneuvers caused by it. Should, however, a pruritis, eczema or intertrigo develop, therapeutic measures for combating it should be used immediately.

Descuret says (*loc. cit.*, p. 503): "We should endeavor to combat by an appropriate antiphlogistic treatment the erysipelatous vaginitis so common in working girls who are obliged to remain seated the greater part of the day."

Do not give highly spiced foods or alcoholic drinks to young girls.

Children should not be put to bed before they are tired enough to go to sleep. Hygienic exercises, among which we may number walking, running and jumping, are good to bring about this condition of body.

The bed should be moderately hard (a hair mattress is best) and in a cool place that is free from moisture; the patient's arms are best outside the bed clothes or else crossed on the chest.

The sleep should not be of more than eight hours' duration and the child must be made to get out of bed immediately upon awaking.

In summer baths are necessary, but in winter washing with warm or cool water and a sponge is to be recommended.

Constipation and pin-worms require prompt treatment.

(B)—Parents should choose their children's playmates with great care so as to prevent the influence of bad examples; this is an essential point. Do not allow too great intimacies and never, under any circumstances, allow your child to pass the night away from home unless you are with her.

(C)—Keep all unhealthy literature and "classical" engravings, photographs, paintings and statuary out of the way of young girls; but when they are old enough, there should be no bashfulness or mock modesty in explaining to them the "role" that the organs of generation are some day destined to play. In this way the disastrous results of an unhealthy curiosity may be forestalled.

Nevertheless, if in spite of this education, by reason of an ardent temperament or of some genital idiosyncrasy, the young girl shows onanistic tendencies, she should be married as soon as possible if nubile; if not, and the parents can afford it, try foreign travel and the distrac-

tions of a new life; or else endeavor to inculcate an artistic taste of some kind, such as drawing, painting, music, etc.

Our prophylactic measures were either not employed or have failed; the girl is a confirmed onaniste; what can be done to break up and destroy this vicious habit?

TREATMENT PROPERLY SO CALLED.

We have here two methods:

(A)—Gentle, among which we may class the use of drugs.

(B)—Repressive, under this head come the surgical methods of procedure.

(A) GENTLE TREATMENT.

Persuasion, menace and fear, especially the two latter, are all that is necessary in some cases.

Vogel reports a curious case of cure obtained by an old surgeon blessed with a big red nose, who once threatened a young onaniste to put a plaster on a certain place and then to come with his glasses and examine it twice a day.

Children who have been caught masturbating should never be left alone, especially at night; and, if necessary, some person who has the authority so to do should tell them bluntly, without circumlocution, that unnatural practices will soon deprive them of their fresh color and their beauty and will turn their faces livid and bring on a premature and hideous old age.

Perhaps one of the most efficient methods of cure is to threaten to tell all their friends and neighbors of their doings.

Do not let us forget that exercise is a very powerful curative as well as prophylactic remedy for manualization, while, at the same time, it is a necessity for good physical development and for the harmony of the organic functions.

It is true that exercise causes the patients to grow thin, but they lose their fat only; their muscles, on the contrary, grow more voluminous and firmer; their chests become fuller, their walk lighter and surer, their movements more energetic, prompter, freer and more supple.

The sentiment of maternity is a powerful aid to the physician when his patient is a married woman. Roubaud (loc. cit. p. 559) speaks in the highest terms of this and thinks it almost infallible.

DRUGS.

The *Materia Medica* puts at our disposal a certain number of substances that by their local and general sedative properties have a remarkable influence upon the genital apparatus. These drugs that benumb the special vitality of the sexual parts and annihilate the venereal desires, must not be neglected in the treatment of masturbation.

Let us mention, among the surest of the anaphrodisiacs camphor, lupulin, digitalis, ergot of rye, belladonna, valerian and the valerianate of zinc, the sulphate of quinia and the bromides of sodium, of potassium and of camphor.

Ergot, wrongly considered as an aphrodisiac, is, on the contrary, a powerful sedative; it slows the circulation, causes anemia of the nervous centres and determines a diminution of the reflexes. This latter property renders it particularly useful in masturbation.

Bromide of potassium, when administered for some time, causes a torpor of the genital sense that may go on to temporary impotence. This stupefying agent, this sedative of reflex sensibility and of the sensivo-motor system is also a valuable hypnotic and its use is naturally indicated in the treatment of onanism.

What we have said of the bromide of potassium is equally true of the bromide of sodium, which has the advantage of not causing muscular weakness and paralysis of the sphincters like the potassium salts.

The monobromide of camphor is an excellent agent that unites the synergistic properties of camphor and bromine.

This summary sketch might give the impression that the *Materia Medica* is easily mistress of the situation and that the administration of one or several of the remedies mentioned will cause an immediate cessation of onanistic practices.

This is, unfortunately, not the case.

Do not let us forget that the idea of masturbation comes far oftener from the mind than from the body and, therefore, the drugs we have mentioned do not always produce the desired effect and are, in our opinion, of far less use than moral or hygienic measures.

Does this imply that we do not counsel the use of drugs? Evidently not!

In a good number of cases they will be useful; of a great and incontestable utility: they will sometimes give most unexpected results, when, for instance, the onanistic maneuvers are of recent date, or when they are caused by a morbid modification of the genital nervous system.

Finally, they will, in every case, be excellent adjuvants to all other forms of treatment.

REPRESSIVE TREATMENT.

In children it is too often the case that everything that we have mentioned remains without effect and gives no result.

The strictest surveillance now becomes necessary and a good whipping should be given them every time they are caught in the act.

This is the first means of repression; there are others that are lauded or condemned by different authors; these are: First, infibulation; second, the strait-jacket; third, the "ceinture contentive;" fourth, amputation of the clitoris and section of the ischio-clitoridian nerves. I shall have a few words to say about each of these methods.

INFIBULATION.

Properly speaking, infibulation in the female is an operation that consists in passing a ring through the labia majora to prevent their separation, and, therefore, sexual connexion. It is a method of compelling chastity that is still used in India and in some parts of Africa. A small opening is left for the passage of the urine and of the menses.

This barbarous procedure is of absolutely no use in masturbation. A simple ring may prevent the introduction of the penis, but not that

of the finger or of any other instrument of manualization.

Even complete vulvar suture would not prevent onanism, so we have mentioned the operation of infibulation only to show its inutility and advise its rejection.

THE STRAIT JACKET.

This is better and the moral effect caused by it is also of some value. Descuret says: "I have seen a large number of children and adults of both sexes completely cured by the long-continued use of this instrument."

Whatever this eminent moralist may say, I myself put no great amount of faith in it. I acknowledge that it may be of great utility in men; but the case is different in women, because they do not need their hands to produce the venereal spasm.

Rubbing one thigh upon the other, the simple contact of the external generative organs upon the corner of a chair or table suffice for those who are accustomed to it.

Nevertheless, it may be well to commence our coercive measures either with the strait-jacket or with the cast-iron gloves that are recommended by some physicians.

CEINTURE CONTENTIVE.

It is my opinion that a light, well-made apparatus that closes hermetically the vulvar orifice while holding the thighs slightly separated and affording a little opening for the passage of the urine and menses would be of immense value in the treatment of onanism, especially if its use be constant.

It should, of course, be removed a few minutes each day for the purpose of cleanliness. All the apparatus I have seen so far, has been too clumsy and too expensive for general use.

The Circassian women put genital belts upon their daughters, who wear them until the day of their nuptials; formerly, certain princes forced their wives to wear such an apparatus; could not some modification of this same thing be used to bring back to health and strength women and girls who are carried away by a deadly passion?

The following case reported by Reveille-Parise is too often quoted as showing the perfect uselessness of the "ceinture contentive:"

"A little girl, 7 years of age, was caught in flagrante delictu of masturbation; her mother, without reproaching her, said that it was customary for children of her age to wear a particular form of bandage. This fitted well and the child regained her lost health rapidly, but one day she seemed to have lost ground and a strict surveillance showed that she had succeeded in provoking

the venereal spasm by means of a long feather that she had with most infernal skill slipped under her bandage."

This is only an exceptional case that does not annul the value of the "ceinture contentive," but only shows that it must be made and fitted exceptionally well.

It must be acknowledged, also, that our weapons for combating onanism are none of the best, and, therefore, that we must use those we have even if they are not of an indiscutable precision.

(To be Concluded.)

THE VARIOUS USES OF PHENACETINE-BAYER.*

BY CLARENCE S. ELDREDGE, M.D.

Asst. in Ophthalmological Department, Medico-Chirurgical Hospital, Philadelphia, Pa.

In looking around for an antipyretic we have these ideas in view: First, to select a drug that will reduce bodily temperature; second, that will be easy of administration, and, third, that will have no deleterious action upon the system. A drug possessing these properties is Phenacetine-Bayer, which was prepared by Dr. Hunsberg and recommended to the medical profession by Kast in 1887.

Of late years I have used Phenacetine-Bayer to reduce temperature in typhoid fever. I was called to see Mr. G. M., aged 22, and found him suffering with a violent headache and a sense of mental weakness; when standing erect his limbs trembled and he was seized with vertigo. He had no appetite, a bad taste in his mouth and was troubled with an excessive thirst. The tongue was large, pale, swollen and indented at the margins by the teeth. There was abdominal tenderness and gurgling in the right iliac fossa, with aching in the back and limbs. Temperature

was 104 degrees; pulse rate, 130. I put patient to bed and ordered a liquid diet, consisting chiefly of milk, whisky, and prescribed Phenacetine-Bayer to reduce the temperature. I gave him an eight-grain powder in the afternoon, and the next morning his temperature was 101 degrees, with a corresponding fall in pulse rate. I continued the Phenacetine, giving eight grains every afternoon for 21 days, at which time the fever abated and the patient made a speedy recovery. This case never had any complications, the stomach retained food, the bowels moved regularly, and at no time did the temperature rise above 103 degrees. In this case I can safely say that Phenacetine relieved the aching of the first stage, reduced the temperature and prompted an aseptic state of the alimentary canal.

Another case similar to the above might prove worthy of mention. Stella M., aged 5 years, presented all the symptoms of typhoid fever. Temperature in axilla was 104.2-10, pulse rate 140. I gave, as before, milk and whisky, and Phenacetine-Bayer in four-grain doses to reduce fever every

*Abstracted from the Med & Surg. Reporter.

afternoon. This case ran a course of 14 days and made a good recovery. The patient had nose bleed once, but this was very slight.

In both of these cases after the first week I administered turpentine for a few days. It will be noted that in neither of them did I give any heart tonic, except whisky as a food, and at no time did I see any unpleasant action upon the heart from the use of Phenacetine. For restlessness during typhoid fever this remedy, administered in the evening, has sufficient anodyne properties to give your patient a good night's rest. In cases of this disease where an intestinal antiseptic is needed I am in favor of giving Phenacetine and Salol.

In scarlet fever Phenacetine-Bayer and the cold bath are to be used in all cases at the onset of the attack. Given early it reduces the temperature, prevents restlessness and modifies to some extent the course of the disease.

In diphtheria the same can be said of Phenacetine; the hyperpyrexia is controlled, the heart's action not disturbed and the restlessness relieved by small and repeated doses of this drug.

In malarial fever I have given Phenacetine to reduce temperature with happy results. In one case, a girl of four and one-half years old, with evening exacerbations of fever and violent headaches, I prescribed Phenacetine, reducing the temperature and relieving the pain. In the morning the temperature was always normal, while in the evening it rose to 106 degrees in the axilla. Phenacetine was given by mouth and quinine by the bowel, each about four hours before the expected rise of temperature. This treatment soon prevented the chills, fever and sweating, and the patient improved rapidly. In all such cases I always start up secretions by first giving calomel.

In the so-called La Grippe, Phenacetine-Bayer should not be lost sight of. In these cases, which, as a rule, begin with head and backache, pain in the limbs and high temperature, it is the drug to use. It can be given alone in powder form or in combination with other remedies.

One of my favorite prescriptions in these cases is Phenacetine, three grains; quinine sulphate, two grains, in capsule form, every three hours. Equally good results can be obtained by administering Pill Phenacetine and Quinine Compound, as prepared by Schieffelin & Co., New York. After using the above treatment I have seen the pains disappear and the temperature reduced in a very short time. In La Grippe of the aged and infirm Phenacetine is the most valuable drug, being given in small and repeated doses.

In La Grippe associated with rheumatism, in both young and old, Phenacetine, together with Salophen, gives very encouraging results. Phenacetine, two grains; Salophen, two grains, in pills or capsules, every three or four hours, will not disappoint you. In cases where the heart action is weak or failing I always give along with Phenacetine strychnine sulphate 1-40 to 1-10 grain in each capsule. We have here in strychnine both a general and heart tonic which will always benefit the patient.

In the various forms of headaches, such as hemicrania and neuralgias, Phenacetine for the relief of pain is unrivaled, being prompt in action and lasting in its effects. In the headaches from eye strain and muscular insufficiency it works wonders, but a cure cannot be expected except by glasses and the correction of the unbalanced muscles. One of my formulas for the relief of pain in these cases is Phenacetine, three grains; monobromated camphor, one grain; caffeine citrate, one grain, in pill or capsule. With this formula I have had excellent results. In cephalalgia of nervous origin I frequently prescribe a pill made by Schieffelin & Co. It is called by them pill hemicranine and is composed of phenacetine, three grains; caffeine, one grain; citric acid, one grain, and with this I have had satisfactory results.

In people with idiosyncrasies for certain drugs it is not necessary to give Phenacetine in combination. Being so nearly tasteless, it is easily administered in powder form, and the other remedy can be increased or

diminished as required by the patient without interfering in any way with the Phenacetine.

Phenacetine in these cases will rarely if ever disappoint you if properly and judiciously used; some cases require large doses, others small and repeated doses, but in my experience the results have always been the same—that is, relief of pain.

In pneumonia Phenacetine is a safe and efficient remedy. In those cases beginning with chill, pains in all parts of body, high temperature and restlessness it is indispensable. It has a double action; first, antipyretic, sweating is produced and the temperature reduced like magic; second, analgesic and anodyne, the pain is relieved and the patient is made comfortable in a comparatively short time, and when given in the evening a good night's rest is secured. Experience in these cases must be your guide. I have administered Phenacetine in small repeated doses, while at other times large doses have given better satisfaction. I will refer to one case that recently came under my notice. Mr. J. C., aged 56, a clerk, came home in the afternoon with chills, headache and a sense of general weakness. I found the patient with rapid pulse, high temperature and expectorating yellow mucus. His breathing was labored and the presence of a cyanosed condition was noticeable at the lips. Percussion revealed dullness at the base of the right lung, and auscultation gave marked bronchial breathing. After administration of Phenacetine the temperature began to fall, pain disappeared, the cyanosis lessened, the patient was made comfortable and sleep seemed refreshing. Aside from Phenacetine I had patient wrapped in a cotton jacket and gave the usual expectorant treatment. This patient received a ten-grain Phenacetine powder every day for 11 days, when the fever subsided and the patient made a speedy recovery.

I must also call attention to Phenacetine in acute articular rheumatism. When administered in 10 to 15-grain doses, three or four times a day, good results have been obtained.

I am not in the habit of prescribing it alone, but along with other remedies, such as salicylic acid in capsules. I prefer, however, to administer Phenacetine in powder and salicylic acid in liquid form, both at the same time, regulating the dose of each according to the susceptibility of the patient and the severity of the attack. Under this treatment pain and swelling subside and the disease disappears quickly, and with complete recovery. In rheumatism associated with heart complications, as we often find it, Phenacetine to reduce the fever is perfectly safe. Here we can give it alone or with strychnine sulphate. I have never seen any depressing action on the heart from its use in these cases. For rheumatism it can be combined with Salicin, Salol and with Salophen.

A combination of Phenacetine and Salol is highly recommended in cases where we have gastric disturbance. The Salol is decomposed in the intestine and acts as an antifermentative and antiseptic.

In gonorrheal rheumatism, probably the most obstinate of all rheumatoid affections, for both patient and physician, Phenacetine acts well when given with iodide of potassium of salicylate of soda. I have had good results in one case, in which my treatment consisted of Phenacetine-Bayer, iodide of potassium and salicylate of sodium. The Phenacetine was given in powder, the other remedies in liquid form, with blisters to the ankle.

My patient made a rapid recovery and has never had any after-effects.

In the treatment of tuberculosis, where we have fever, cough and expectoration, Phenacetine will prove of service. If given early in the afternoon it prevents the evening exacerbations of fever always accompanying this disease; allays, to some extent, the hard, harsh cough, and often lessens the expectoration. In some cases small and repeated doses work well, while in others it is better to give larger doses at longer intervals.

In whooping cough Phenacetine has proved very satisfactory in my practice. When given early at the

onset of the attack it modifies the spasm and diminishes the frequency and severity of the paroxysms. I think Phenacetine has but little tendency to effect a cure in these cases, but under its use the disease seems to run a shorter course and is certainly less severe. The dose is to be regulated by the severity of the attack and the age of the patient; one or two grains, three or four times a day, will usually suffice. To reduce the temperature of measles Phenacetine can be relied upon. Very recently I have treated several cases of measles with high temperature and marked catarrhal symptoms. I gave Phenacetine in small repeated doses with the result that the temperature came down and restlessness disappeared. Other remedies were given for catarrhal trouble. All the patients improved and made a speedy recovery without any complications.

For local application Phenacetine has been used by me but very little. I have employed it in the case of old ulcers, etc., with benefit. When dusted on the raw surfaces it produces healthy granulations and rapid healing. I used it as a dusting powder in one case of syphilitic ulcer along with antisyphilitic treatment. The ulcer healed and the pain soon disappeared. When employed as a dusting powder Phenacetine should be finely powdered.

The various uses to which this drug has been put is almost numberless. I have employed Phenacetine for a long time and have found it a

safe and efficient remedy. Its peculiar action and its manner of reducing bodily temperature is not clearly understood, still I have no doubt but that it acts directly on the thermogenic centre, increasing heat dissipation or diminishing heat production, or both at the same time. Cerna says the reduction of temperature results chiefly from a decrease in heat production, with a slight increase in heat dissipation. I have never seen any bad effects from the use of Phenacetine or any depressant action upon the heart. In administering antipyretic drugs in large doses toxic symptoms should be looked for. The most striking symptoms would be cyanosis, more marked on the face, lips and finger tips, a sensation of exhaustion, desire for air or vertigo.

Therefore, in all cases of weak and failing heart, where antipyretics are indicated, as a safeguard give such heart tonics as caffeine, strychnine, etc.

In summing up the use of Phenacetine, I would say: First, it reduces fever, and, therefore, is an antipyretic. Second, it relieves pain, hence has anodyne and analgesic properties. Third, it has a sedative action upon the nervous system. Fourth, it has the advantage over other antipyretics of being non-toxic.

As Phenacetine is almost tasteless and easy of administration, it can be given in combination with other remedies, or alone in powder, pill or capsule form.

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Editorial

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THE CONSTITUTIONAL ELEMENT IN SPRAINS AND FRACTURES.

In a recent valuable clinical contribution, by Dr. John McGrath, before the Celtic Medical Society, attention was directed to the occasional association of rheumatic inflammation in joints contiguous to fractures. Most text books in surgery are silent on this phase of pathology, as a consecutive condition after severe traumatisms of limbs. There is none, perhaps, of more practical importance to be borne in mind by the practitioner.

Many of the older authors on bone traumatisms describe at length the various rheumatoid phenomena, which often involve the joints after injuries. Boyes, Hunter and Larry have fully considered them.

They are of great interest, both from the therapeutic and medico-legal standpoint. Many times we meet with a case of apparent simple sprain, in which the violent local reaction and inflammatory symptoms are out of proportion to the quality of the injury, and resolution fails to set in, or joint function return, in spite of our immobilization, pressure, lotions and massage. The articulation remains exquisitely sensitive, tumefied and painful, when we commence to suspect serious osseous implication. Now, if we will only

turn our attention to the patient as a whole rather than concentrate our attention on the local condition, light may be let on, which will often clear the way, remedies acting primarily on distant parts.

Let us, for instance, commence with the patient's antecedent history. Has he had rheumatism before, has he had neuralgias, and, if so, were they probably syphilitic or malarial in character; has he had gonorrhea, or has he now stricture of the urethra?

If a female, one will do well to inquire after hysteria.

McGrath reported the case of a woman who suffered from a most severe form of arthritis, at the radio-carpal joint, after a Collis fracture. Local remedies failed of relief, when non-articular rheumatism was suspected. The therapeutic test, a pill dose of colchicum and the salicylates soon decided the question, by promptly suppressing all the urgent symptoms and restoring function in the joint.

Non-articular rheumatism should be constantly kept in mind, when we are called on to treat either the pathological or traumatic neuroses. Let the constitutional element then be always borne in mind and tested before we condemn a joint to the

improvisement of any bracing apparatus. Let us not overlook telluric influences, the effects of a latent type of neuralgia on nutrition, and in reparative processes. Our fathers in medicine commonly dosed any case of trauma with mercury, probably on the principle that a degenerative type of syphilis lingered in the system. We would do well to imitate them in this regard, when good ground for be-

lieving syphilis acquired or inherited exists.

From the forensic side alone this topic commands our earnest attention. An individual or a corporation may be responsible for the carelessness through which an injury was sustained, but it would be a harsh injustice to hold them culpable, or force an extortion through vices in the constitution of the person injured.

HYSTEROPEXY OR VENTRO-FIXATION FOR DISPLACED UTERUS.

Dr. Laphorn Smith, of Canada, has lately submitted an elaborate essay on this important subject. He prefers ventro-fixation to Alexander's operation, because of its efficiency, its innocence and its facility of execution.

Procedentia may be treated by the bandage, or, when of a moderate degree, with a simple tampon of cotton in the vagina, which in some instances must be kept in place by the T bandage, and would be very useful were it not for the fact that they press on the rectum and mechanically oppose free defecation.

The pessary has been pretty generally abandoned by all progressive gynecologists. Few of them can be properly adjusted. They are all irritating and under any circumstances are but temporary expedients. Unless they are frequently replaced and cleansed they lead to ulcerations and often quite imbed themselves out of sight in the sub-mucous tissues. In the presence of inflammations, cystitis, metritis, or salpingitis they are a source of distress, and are certain to aggravate the existing disease. They interfere with coitus, but not with pregnancy, which, after all, is the great physiological cure of all dislocations of the uterus.

Ablation, or amputation of the uterus for simple displacement, is a barbarous, unsurgical procedure, notwithstanding its French popular-

ity, and in the child-bearing woman it is both immoral and inhuman, a cruel mutilation without any excuse of justification.

To make a comparison between Alexander's operation and hysteropexy, one should look over the morbid anatomy of the various types of uterine displacement.

For simple uterine hernia, dependent on relaxation and stretching of the tissues, with, perhaps, a large vagina of heavy uterus, the shortening of the round ligaments with a month's rest in bed will give great relief, if not an approximate cure.

With this class, so common in elderly women, a McIntosh, or other sort of uterine supporter, may often be utilized with great advantage. These supporters serve the purpose of a truss and may be worn indefinitely, if caution be observed to keep the cusp clean and the spring renewed.

Hysteropexy, from a theoretical standpoint, may seem the ideal operation for luxation of the uterus, whatever may be the direction of the displacement when the organ is tied down by a plastic solder to other structures, and, no doubt, in certain selected cases, it may be moderately curative in its effect.

It should be remembered, however, that the liberation of these adhesions, whenever they have undergone fibrous changes, is not entirely free from danger. With the small incision we must depend entirely on

the sense of touch, and we stand in danger of lacerating the intestines, or bladder, or tear through the large plexus of pelvic veins.

The principle of this operation is faulty, inasmuch as it establishes one pathological condition in removing another.

After the fundus is finally freed,

and we peel off its serous investment and tie it up against the abdominal wall over the space of Retzius, and solid adhesions follow, the organ is where it does not belong; it hangs over the bladder and is sure to provoke vesical irritation by pressure, and descend in time to its former site.

Correspondence.

DIET IN CHRONIC BRIGHT'S DISEASE.

Editor "Times and Register:"—In the next number of your journal will you be so kind as to give a complete diet list for patient with chronic Bright's disease?

A. M. Jones, M. D., Corydon, Ind.

(In replying to the above request it may be said that no two cases will improve in the same ratio under the same dietary; hence, a diet list given here would hardly be considered "complete.")

There are a few salient points to be remembered in arranging a diet list for a patient with this disease, which in the main will answer every purpose of a regular list and far more reaching in its application to cases in general. First, limit the amount of nitrogenous material introduced into the system. This does not im-

ply a total abstinence of albuminoids, but a restriction as far as possible compatible with good general health. Second, supply water freely to irrigate the kidneys, and enable them to throw off the solids with greater ease. Third, keep patient in warm climates during cold months.

As for actual food the absolute milk diet offers the greatest success in dietetic management. This means milk three or four times a day, with bread or toast; milk puddings and tea. Starches and sugars should be avoided. Fats may be allowed and carbo-hydrates, inasmuch as they throw no great amount of eliminative work on the kidneys, the products of their utilization, carbonic acid and water, passing off through other channels.—Ed.)

Book Reviews.

We have just received the first number of the Russian Archives of Pathology, Clinical Medicine and Bacteriology, published at St. Petersburg, under the direction of V. V. Podwyssotszky, professor of general pathology in the Imperial University of Kieff.

The days are now passed and gone when the physician was satisfied to

know only what was going on in his own little world and limited circle of medical acquaintances. Enterprising editors of our medical papers opened to their readers unknown treasures of medical science from all quarters of the globe. Extracts from French exchanges were the first to appear in their columns; then came German medical literature. A stasis

in the circulation took place here and was rapidly going on to thrombosis and embolism when the Italians were one day discovered to have as well appointed hospitals as their neighbors, and surgeons whose names are now in everyone's mouth. This discovery was followed rapidly by others. The Swiss, Dutch, Hungarians, Norwegians, Danes, Swedes and Bohemians, were found to be fully on a par with our own countrymen in the field of medical science, but that far-away Russia was the peer of Germany in medical advancement was not even suspected by us. To-day, when the language of the Czar is no longer an absolutely unknown sound outside of its territorial limits, we are again astonished at discovering new mines of science and literature that are unequalled anywhere. In the pamphlet before us are six original articles, (two of which are of great value to the general practitioner) critical reviews, analyses of articles, book reviews, etc.

We heartily recommend the work to everyone, as promising to be among the leaders in its field of action.

An abstract of one of the articles will be in one of our future issues.

CHANDLER.

A HAND-BOOK OF LOUISIANA, GIVING GEOGRAPHICAL AND AGRICULTURAL FEATURES, TOGETHER WITH CROPS THAT CAN BE GROWN. For the State Immigration Association, 620 Common street, New Orleans. By Wm. C. Stubbs, Ph. D., director State Experimental Stations. Free on application.

MITTHEILUNGEN AUS DEN GRENZGEBIETEN DER MEDIZIN UND CHIRURGIE. Herausgegeben von O. Angerer (München), E. von Bergmann (Berlin), P. Bruns (Tübingen), H. Curschmann (Leipzig), V. Czerny (Heidelberg), A. Freiherr von Eiselberg (Königsberg), W. Erb (Heidelberg), K. Gerhardt (Berlin), K. Gussenbauer (Wien), A. Kast (Breslau), Th. Kocher (Bern), R. U. Kronlein (Zürich), O. Leichtenstern (Köln), W. von Leube (Würzburg), E. Leyden (Berlin), L. Lichtheim (Königsberg), O. Madelung (Strassburg), J. Mikulicz (Breslau), B. Naunyn (Strassburg), H. Nothnagel (Wien), H. Quincke (Kiel), M. Schede (Bonn), K. Schoenborn (Würzburg), R. Stintzing (Jena), A. Wölfler (Prag), H. von Ziemssen (München). Redigiert von J. Mikulicz, Breslau; B. Naunyn, Strassburg.

We have received the first numbers of the above publication, whose aim is, as the title indicates, to discuss all those questions that lie on the border line of internal medicine and surgery. The list of collaborators comprises many names that are universally known, and whose works have been translated into all Western European languages. The work is destined to occupy a unique place in medical literature. It is printed in large type and upon uncalendered paper, so that the readers' eyes will not be irritated by any glare of reflected light while perusing it.

It is published by Gustav Fischer, of Jena, and the price is 25 Mark (\$6.25) per volume.

CHANDLER.





ILLUSTRATING CERTAIN DIFFERENCES BETWEEN THE MONELL METHOD OF RECORDING THE THERAPEUTIC DOSE OF INDUCTION COIL CURRENTS AND THE PREVAILING ABSENCE OF METHOD IN FARADIC LITERATURE.

Example: "Vaginal bipolar sedation; coil, 1500 yards No. 36 wire; rapid vibrator; E. M. F., 4 cells; R. cut out, 45,000 ohms; twenty minutes daily." There is no expert electro-therapeutist equipped with similar apparatus, who, on reading this record could not instantly apply the same treatment with the same dose, though he were a thousand miles away.

—From Dr. Monell's article in recent issue.

Examples from current literature:

1. "In one case of crutch paralysis, I saw immediate improvement follow the application of the faradic current. Acting upon this hint, I used faradism alone."

2. "Use the faradic battery to stimulate."

3. "The faradic current was alternated with the galvanic, as in the previous cases."

4. "Faradism was applied three times a week for three weeks."

5. "After getting her history I pronounced her trouble ovarian neuralgia, and applied electricity. In three months I discharged my patient as cured."

6. "Others have used faradization."

7. "In a case of morphine poisoning—three faradic batteries were applied, full strength—one to the spine, another to the extremities and the third over the heart and lungs—for two hours."

8. "In diphtheritic paralysis the faradic current should be applied to the affected part."

9. "The faradic current was turned on and in a few minutes the pain was

lessened. The faradism was repeated every day for ten days."

10. "In amenorrhea, electricity, locally applied, is sometimes useful."

11. "I at once began the use of the secondary faradic current, which had a very marked effect."

12. "In paralysis use both galvanism and faradism."

13. "Faradic treatment applied to the same parts is also said to be of great use in some cases."

14. "In insomnia local faradism is frequently followed by a well-marked soporific tendency."

15. "By means of faradism we are able to arrest the progress of the disease in an advanced case."

16. "The value of faradism in this disease must not be forgotten."

17. "The treatment consisted of faradism to the limb and recovery followed in a week or two."

18. "D— prefers faradization, and has met with good results from its use."

19. "Daily faradization with a strong current serves in some cases to give relief."

20. Simple peripheral paralysis, resulting from cold or pressure, and uncomplicated with inflammation, may be treated successfully with the faradic current."

Authorities for the above examples need not be quoted. They are all taken from medical journals and text books.

Could any physician obtain from any of these twenty familiar examples an accurate idea of exactly what any one of the treatments consisted of?

The records of admirable experimental work, and much of this has been done since Faraday's time, is chiefly handed down to us in these vague terms. It may easily be imagined that if a systematic descriptive method as comprehensive and intelligible as that proposed by the writer, had been pursued throughout by the past generation of really great investigators, our difficulties in acquiring clinical experience would be materially reduced. The absence of an instrument with a movable

needle to "meter" the dose of interrupted currents is not a sufficient excuse to warrant the total neglect of any attempt to utilize a practical substitute method of dose registration.

The difference between the appreciation of a clinical result in an unusual case reported so that we can recognize the exact value of the application, and a report simply saying that a faradic battery was used, or that faradism was employed, must be apparent to every one.

THE TREATMENT OF FIBROUS ANKYLOSIS.

A series of cases treated by electrolysis is reported by Dr. F. W. Gwyer. The constant current was used, with moderately large electrodes, and a solution of ammonium chloride.

The current was passed directly through the joint, with the negative pole nearest the adhesions. The application lasts from ten to thirty minutes, and is repeated every two to five days. The strength given detaches to pain, the condition of the skin, and the size of the electrodes. Dosage will vary from forty to one hundred and fifty milliamperes. In the fourteen cases cited, the best results were obtained in injuries. The shorter the interval between the date of injury and the beginning of the galvanic treatment, the more rapid and greater the improvement. The most marked improvement is obtained during the first few applications. Afterwards the gain is slow. In all the cases of injury treated, a great and immediate improvement was obtained. In disease it was much slower and in two of the five cases treatment failed.

The improvement was marked in the following directions:

1. Increased motion.
2. Lessened pain.
3. Reduced swelling.
4. Nearer normal circulation.
5. Increased general usefulness.

This form of treatment is applicable and very satisfactory in all cases

of fibrous ankylosis, especially of recent origin, and to be recommended in cases of injury particularly, and it should be applied immediately on removal of bandages as a routine treatment.

The author remarks that the treatment is more or less painful, but that the benefit is so marked that no patient is unwilling to have it continued.

No positive discomfort need be caused any patient if the operator properly prepares the joint surfaces and modifies the skin resistance. If also the seance is concluded in each case by interrupting the current—every galvanic battery should have a rheotome for this purpose—the later results would not be so slow as Dr. Gwyer found them.

It is my custom in every case of ankylosis or chronic exudation which is to be broken down and absorbed to work with both the constant and interrupted current. Results are often hastened materially by so doing. The following illustrates the cases reported:

Mrs. H., aged 26 years, entered Bellevue Hospital in June, 1894, with a diagnosis of tubercular synovitis of the knee. She was treated until November 18 by plaster immobilization. She was then treated by galvanism. Before treatment, total motion, 5 degrees; after second application, 16 degrees; after ninth application, 29 degrees. Gain, 24 degrees of motion, equal to 480 per cent. Dura-

tion of treatment, twenty-one days. Nine applications of 120 mil. for fifteen minutes.

Mr. A., aged 31 years. On September 18, 1894, he fell and received a Colles fracture of the left wrist; was treated in splints nine weeks. On examination wrist was almost stiff. At most he had ten degrees of motion. After two applications complete motion was restored, there was an absence of all pain and the swelling was much reduced. He resumed work the following week.

Mr W., aged 53. October 14, 1894, he fractured his humerus in the lower part. On removal of the dressings total motion was found to be 72 degrees. After fourth application motion was 102 degrees, a gain of 30 degrees. Duration of treatment, twenty-four days.

Mr. McC., aged 23, entered Bellevue Hospital with a condition supposed to be tubercular synovitis of the left knee. The joint was opened

and found to be non-tubercular. After closure of the wound motion was limited and accompanied by grating. The swelling was marked and he walked with a limp, caused by pain. On November 18, 1894, the galvanic current was applied. After first application total motion was 52 degrees; after eighth treatment, 112 degrees, a gain of 60 degrees. The eight applications covered a period of forty-three days, after which the patient left the hospital with the above gain in motion, much less swelling, no grating, and he walked without pain or limp. 100 to 120 milliamperes were applied for fifteen minutes in this case.

In dealing with cases of wry neck, especially when recent, and due to injury or disease, the same method of electrolytic treatment will be found effective. In joint cases also material assistance may be obtained from the judicious use of the static spark.



Current Medical Literature.

APOLYSIN.

In an article on "The treatment of hyperpyrexia in children, with some illustrative cases," published in the Medical Record, February 22, 1896, Dr. Louis Fischer sums up his experience with Apolysin, and formulates the following rule: We may begin to give a child of one year five grains of Apolysin, to be repeated every two or three hours, the intervals depending on the urgency for reduction of hyperpyrexia. If there is no distinct effect noticeable from the five-grain dose after three doses, it is perfectly safe to give doses of ten grains each every two hours until the fever has been reduced.

I have also frequently combined Apolysin with calomel, and lately have combined it with the compound powder of jalap in the following manner:

R—Apolysin..... gr. lx.
Calomel..... gr. vi.
Sacch. alb..... gr. lx.
M. ft. chart, No. xij. Sig.—One powder every two hours for a child 1 year old.

Apolysin is applicable for the reduction of high temperatures in any and all affections in which antipyretics are required.

My best results were obtained by giving the powders before meals, although some authors advise giving them after meals.

To children five grains for the first year and one grain more for each additional year may be given with some sugar, every two hours, or even hourly, until fever has been reduced sufficiently to satisfy the physician of the removal of the liability to convulsions.

With some children it is preferable to give Apolysin per rectum, owing to the difficulties of giving them medicines. In giving drugs per rectum I follow the usual rule of doubling the dose per month, and give a child one year old ten grains of

Apolysin in a suppository, as may be required. When using rectal medication I invariably advise the precaution of a cleansing enema of one pint of glycerine-soap water or castile-soap water, injected quite high in the rectum or into the colon.

Not one single case showed disagreeable effects from this drug, and it was very well tolerated by weak stomachs, such, for example, as those of children who have been brought up on almost a starvation diet, with bad hygienic surroundings, with alcoholic parents, and, in some instances, in our ordinary tenement houses.

In all thirty-eight cases were experimented with, eight of which I here report. Several are still under treatment and observation. One highly instructive case of double lobar pneumonia, occurring in the child of a physician, I am not at liberty to report. The one point which was noted in the latter case was the ease with which the fever could be reduced, without even the pulse showing any alteration in frequency or rhythm, and without reaction directly attributable to the drug.

In not one single instance did I notice a subnormal temperature. Copious perspiration was frequently found when large doses of Apolysin had been taken.

In several cases, notably one, children took ten grains every hour for twelve hours, or one hundred and twenty grains in all. I took especial pains to notice that not a single eruption ever followed large doses of Apolysin.

R—Apolysin,
Sacch. alb..... aa gr. lx.
Pulv. jalap. comp..... gr. xxx.
M.—Ft. chart, No. xij. Sig.—One powder every two hours.

For ordinary catarrhal gastritis, attended with high fever, and with sluggishness of the bowels, I have found that these powders reduced

the temperature, besides stimulating peristalsis, and evacuated the infected material from the stomach and bowel.

What I have previously said, however, in regard to washing the stomach by gentle irrigation, and flushing the bowel after reducing the temperature, should be well borne in mind.

That this drug can be given with impunity before or after meals I have frequently tested, but it seemed to me that the best results were obtained by giving the drug before meals.

Apolysin can be combined with sodium bicarbonate by giving equal doses of each, and the most convenient plan for giving it has been in the form of tablets, containing seven and one-half grains of Apolysin and two grains of sodium bicarbonate.

I do not, however, for a moment undervalue the great importance of dietetic treatment in the diseases of children yet it must be borne in mind that frequently symptomatic treatment has to be instituted when the causes are unknown and the reduction of a high temperature by a drug that is not a cardiac depressant is one of the greatest boons to mankind.

I would repeat the statement, made in the beginning of my paper, that in using this drug I have discarded all antipyretics, because I have never seen the reduction of temperature accomplished by any one of them without the system suffering from a general depression, caused by weakening of the heart and subsequent derangements.

It is plain from what I have reported in the treatment of a severe form of acute articular rheumatism, that Apolysin can hold its own in the treatment of acute specific diseases in which quinine and antipyrin have been so often given, without, however, making the body suffer from the consequent heart depression.

It is, therefore, one of the most valued additions to the *materia medica* in the treatment of that most dreaded disease, "la grippe."

In infancy it will prove one of the most valuable drugs if given in large

doses, and herein lies its safety, because, owing to its chemical constitution, it has no cumulative effect, as digitalis, for example.

In a case reported by me in this paper I gave 360 grains of Apolysin without having the patient suffer any depressed feeling; on the contrary, the more he took of the drug the brighter and better he felt.

I do not wish to close this paper without giving my good old friend, cold water, its proper place in the *materia medica*, as an additional factor in reducing temperatures, and, while I am extremely enthusiastic concerning the brilliant result obtained by me in the treatment of fevers with Apolysin, there are instances when a cold bath, in addition to the use of Apolysin, will aid this new drug in the performance of its noble duty.

ON INTERNAL TREATMENT IN CASES OF OTITIS INTERNA.

By Prof. Gradenigo, Turin.

Int. Nat. Congress of Laryngology, '95.

Attention was drawn to the fact that some were acquired and some hereditary. In some there was actual disease in the parents, in others only in near relatives. Too little attention was usually directed to the organism. In syphilitic cases, if not too late, specific treatment was to be carried out, and especially intramuscular injections of perchloride of mercury. In those cases in which the condition was secondary to sclerosis of the middle ear, the results were not good. They were diathetic, not infectious, and treatment was to be directed mainly towards the condition of the naso-pharynx and the tendency to catarrh. The recognition of the gouty and rheumatic elements was insisted on.

Dr. Morpurgo insisted on the necessity of experience in general medical practice on the part of the specialist. He considered it often very difficult to diagnose the rheumatic diathesis.

Mr. Cresswell Baber, Brighton, held that in labyrinthine cases pilocarpin should be tried, but that if, after

three or four injections, no improvement took place it should be discontinued. In acute cases it was necessary to give it a full trial, the patient being informed as to the doubtfulness of definite benefit accruing. In some cases small doses of iodide of potassium were advisable. He narrated a case in which deafness accompanying myxedema yielded to thyroid treatment.

Dr. Moure, Bordeaux, referred to the injurious influence of glycosuria. It did not debar operation, but called for appropriate dietetic and medicinal treatment before, during, and after.

Dr. Rutten recommended the administration of perchloride of mercury in the form of a nasal spray of the strength of one per thousand, along with the internal administration of iodide of potassium.

Dr. Dundas Grant insisted on a more careful diagnosis of the different forms of nerve-deafness. In particular he considered it most important to recognize nerve-deafness due to a more prolonged trial of pilocarpin.

Dr. Deli, Ypres, stated that in the form of Vin Nourry he could give larger doses of iodine without disturbance than in any other form.

Dr. Gelle said the same for the iodo-tannic syrup, but that it had to be well manufactured. It did not cause iodism, and did not colorize starch.—*Ther. Jour. of Laryngology*, Nov., 1895.

FUCHSIN IN BRIGHT'S DISEASE.

Besides its employment as a staining agent for bacteria in microscopical work, Dr. G. D. Mackintosh has found tabloids of fuchsin, two grains each, of the greatest value in chronic Bright's disease, reducing the amount of albumen eliminated. Dr. Elliot recommends an ointment of fuchsin with lanoline (grs. 2.4 to 1 oz.) as an application in Paget's disease.—*Journal of Dermatology*.

TREPHINING IN EMPYEMA.

Rey (Gazz. degli Osped., July 11, 1895) recommends trephining

through the rib in cases of pleural empyema. Intrapleural antiseptics can be well carried out by this method, and the integrity of the chest walls is better preserved, thus facilitating the re-establishment of respiration on the affected side. The author makes an incision four or five centimetres long over the eighth or ninth rib, about six centimetres from the costal angle, and then applies a trephine with a crown of one centimetre's diameter. After the disc of bone is removed the pleural cavity is washed out with sublimate solution and boracic lotion, and the largest possible size of drainage tube inserted, extending four or five centimetres into the pleural cavity. If necessary, other parts of the same rib may be trephined. The author has had considerable success with this revival of an ancient practice in the treatment of empyema.

BITING THE NAILS.

Dr. Bertillon, as the result of an extensive inquiry, confirms his previously expressed opinion that onychopagia and similar habits are generally associated with degeneracy. The frequency of onychopagia varies greatly in different institutions. In some 2 or 3 out of every 10 children are addicted to biting their nails. A careful examination invariably reveals signs of degeneracy. The children are usually less healthy in appearance than others, presenting deformities of the skull and anomalies of the teeth and ears. In such subjects the teachers notice a marked antipathy to physical exercises and games requiring effort. They write poorly and show marked inferiority in respect to manual dexterity. They are slow to learn; they are incapable of continuous application; in fact, they always exhibit an inferiority in some direction or other. The disciplinary measures usually resorted to to correct bad habits are powerless in this; in the majority of cases only hypnotic suggestion seems to be capable of effecting a cure. The habit of biting the nails sometimes persists until late in life.

—*Indian Lancet*.

German and Italian

Translated by DR. F. E. CHANDLER.

BIOLOGICAL ACTION OF HYDROGEN DIOXIDE.

Drs. Colasanti and Brugnola, of Rome, have continued the investigations of Colasanti and Capranica, on the action of H_2O_2 in the organism. They have first noted the general phenomena observed after hypodermic injections of various quantities of the drug. They found that a constant depression exists in the intra-organic metastasis. The respiratory gaseous interchange is likewise diminished, consequently hypodermic injections of hydrogen bin-oxide depress all the biological processes that are taking place in the animal tissues.

In the urine, the authors have never found abnormal elements, and searched in vain for albumin and sugar.

As to the blood, they found that there was a sensible increase in the number of the red blood corpuscles, while the amount of hemoglobin diminished slightly.

Endovenous injections resulted also in the diminution of the biochemical processes. Urea, nitrogen and chlorine were constantly diminished. The exhalation of carbon dioxide fell below one-half its normal quantity.

The most important change produced after endovenous injection was the physico-chemical modification of the blood. The red corpuscles were destroyed in large numbers.

The results of the authors' experiments may be summed up as follows:

Hydrogen dioxide injected into rabbits causes death by asphyxia. This is not the case with dogs, where, nevertheless, the injection provokes a more or less diffuse local emphysema. This emphysema is due to the decomposition of the drug, part of which is absorbed and passes rapidly into the circulation, causing transient, convulsive, nervous disturbances that are increased by en-

dovenous injections.

The convulsions resemble those caused by the action of compressed air.

Endovenous injections of a 5 per cent. solution cause the death of animals in violent tetanic convulsions similar to those described by Paul Bert, and which follow the action of oxygen under high pressure.

—La Medicina Contemporanea.

THE TREATMENT OF INOPERABLE CANCER WITH METHYL BLUE.

Under the direction of Professor d'Ambrosio, Dr. Alessandro, of Naples, tried at the clinic for incurables the injection of methyl blue in inoperable carcinomata.

He obtained a noticeable improvement in a woman, 36 years of age, who was afflicted with a scirrus cancer, ulcerated and inoperable, of the left breast.

During several months, parenchymatous injections of the drug were made every two days. The tumor sclerosed, diminished in size; the ulceration disappeared and the pain ceased; around the tumor nodular, cutaneous growths were visible, but these disappeared as the treatment was prolonged.

The patient then caught an exudative pleurisy and died of it.

The autopsy showed at the place of the tumor a dark cicatricial tissue, mummified and circumscribed, non-adherent to the subjacent parts. Two other cases improved under the same treatment.

After these experiments, the author tried methyl blue in a case of inoperable uterine cancer that had infiltrated the vaginal walls of a patient whose state was extremely delicate, on account of advanced anemia. The woman had not left her bed for six months.

She was given hot vaginal injections of the sublimate solution, night and morning, and an injection of methyl blue every other day.

After ten injections, she was able to leave her bed, but then, because of the great inflammation of the digestive tract, the injections had to be suspended. The greatest advantage obtained in this case was the decrease of the pain and complete suppression of the hemorrhage.

These experiments have, therefore, given as results: Diminution and even disappearance of the hemorrhage; lessening of the pain; diminution in the size and a retardation of the rate of growth of the tumor; the destruction of the tumor and the sclerosis of the granulations.

Examination of the urine showed that methyl blue has absolutely no action upon the kidneys.

—*La Medicina Contemporanea.*

VAGINAL DOUCHES IN GYNECOLOGICAL PRACTICE.

Dr. Strassmann, of Berlin, closes a paper on this subject with the following review:

1. In healthy genital organs, douches are unnecessary (menstruation, cohabitation, pregnancy), external washing is sufficient.

2. Cleansing douches (lukewarm), when there are foreign bodies (pessaries), in the vagina. Also during menstruation.

3. Hot douches, 40 to 50 degrees C. Additions: Salts of bittern (*Mutterlaugensaltz*), tr. iodi, 1 to 2 teaspoonfuls to the liter. a. In amenorrhea (except in growing girls, atrophy from lactation, early climateric). b. In insufficient involution, in chronic metritis. c. In exudations (carefully in perimetritis). When fever is present the hot douches do not cause the reabsorption, but the breaking through of the exudate. d. In chronic disease of the annexes (either alone or in conjunction with tamponning or massage). e. For controlling hemorrhage in menorrhagia, endometritis, myomata, etc., and even in secondary uterine hemorrhages (ad-

dition, tannin, one dessertspoonful to the liter).

4. Cold douches as hemostatics only occasionally, preferably in bleeding carcinomata.

5. Medicated douches. a. Diseases of the vagina: 1. In dry catarrh (*seborrhea vaginalis*), the drugs that attack mucus; soda, sodii bicarb (one dessertspoonful to the liter). 2. In purulent catarrh, pyroligneous acid (two dessertspoonfuls to the liter); in colpitis senile, zinc sulph. (one dessertspoonful), solveol (1 to 2 dessertspoonfuls), corrosive sublimate, 1-1000, or as the physician may order. 3. In wounds of the vagina, potassii hyp. (1 knife point), (rest in bed), acid tannic or acid borac. (each 1 dessertspoonful). b. In diseases of the portio-vaginalis uteri and cervix (erosion, ectropion, catarrh), pyroligneous acid (2 dessertspoonfuls), solveol (1-2 teaspoonful), formalin (10 per cent. solution). c. In catarrh of the cervix and corpus. For dissolving and getting rid of the secretions (soda, sodii bicarb., lysol), in addition to local treatment.

No douching in the discharge of the anemic or in faulty development, but general therapeutic measures. d. In gonorrhoea. In the acute stages (urethritis, vulvitis), no douches, only washing (zinc sulph.), likewise in endometritics, douches in the chronic stage only.

In vaginitis, solveol. Sublimate, never in pregnancy. In acute inflammation of the annexes and painful chronic ones, no douching. In ichorous discharges, creolin (1-2 teaspoonful). In malignant processes the douches should be replaced as soon as possible by the dry treatment (iodoform gauze). The doses of drugs are to one liter water.

—*Medizinische Novitäten.*

SEMINAL STAINS.

These, according to de Nobele, may be easily proven by the following methods:

The piece of cloth in question should be cut in small strips, after folding so that the suspicious stains touch, and then placed for several hours in a 1 per cent. solution of

common salt or a 1-2 per cent. solution of alcohol. A strip of the cloth is then pressed out between slide and cover glass and stained with a weak fuchsin solution. The spermatozoa are then readily recognized.

—Medizinische Novitäten.

RESECTION OF THREE METERS, THIRTY C. M., OF INTESTINE IN A CHILD 8 YEARS OF AGE.

From the *Independence Medicale*, of February 26, we translate the following:

On the ninth of August, 1894, a child 8 years old was brought to Professor Ruggi, of Bologna. On the 15th of April, preceeding, the child had received a severe blow upon the abdomen on a level with the umbilicus. For 15 days the child remained, relatively, well; one day, after having eaten some fruit, he presented symptoms of intestinal stenosis, phenomena that were treated first with purgatives and restricted diet. The symptoms of stenosis grew worse. The appetite remained good, but the child vomited after each meal; the stools had a nauseating, but not fetid, odor.

There was probably an obstruction in the small intestine. Examination showed signs of intestinal stenosis; lumps formed rapidly and lifted irregularly the abdominal wall. These lumps were more manifest when the intestines contracted.

On the morning of the 14th of Au-

gust, Professor Ruggi performed a first laparotomy.

This remained without result, and the author performed two others at varying intervals.

At the third operation he found it necessary to remove the entire portion of intestine that was covered with inflammatory exudations and which, in certain parts, was detached from the mesentery.

He removed three portions that measured altogether 3 m., 30 cm.

The child recovered.

—II Policlinico.

NATALITY AND MORTALITY IN PARIS.

From Sunday, December 8, till Saturday, December 14, 1895, births, 1082, sub-divided as follows:

Males—legitimate, 398; illegitimate, 145.
Females—legitimate, 383; illegitimate, 157.
Total, 540.

Deaths, 944, in a population of 2,424,705.

TROUBLE IN STRASBURG UNIVERSITY.

According to the *Journal d'Alsace*, there has been a series of rows between the German and the native Alsatian students at this university. The trouble was precipitated by an Alsatian refusing to accept a challenge to a "Schlaeger" duel, and his compatriots espoused his cause.

Russian and German

Translated by DR. A. D. DAVIDOW.

TREATMENT OF ENDOMETRITIS.

Fehling, *Wiener Med. Presse*, 1895, No. 24.

In acute endometritis, it should be distinguished, whether it be of puerperal origin or not. In the former, at the commencement, author advises, washing out the vagina

antiseptically every two or three hours. When, after 24 hours, no improvement is noticed the uterus is to be disinfected by an injection, and if necessary the same repeated once more after a lapse of 12 or 24 hours. Author restricts the number of uterine injections to two, for, if that does not arrest then the

septic process is beyond the endometrium.

Scraping in puerperal endometritis is to be recommended in case of a relapse in the second week or later, or in endometritis after abortion with evidence of foreign substance.

In acute endometritis, not of puerperal origin, mostly due to gonorrhœic infection, general treatment is to be advised (rest in bed, ice, cathartics, abstinence from coitus, morphine, etc.).

In gonorrhœic endometritis, when the infection is limited to the vagina and cervix, no attempt should be made on intrauterine medications; which are to be regarded as dangerous as though the appendages had been affected. Active vaginal antiseptic injection is all that is required. In gonorrhœic endometritis without inflammation of the appendages, the gonococci in the serous membrane can be destroyed by eroding with carbolic chloride of zinc, tincture of iodine, etc.

Chronic endometritis corporis, F. treats in the virgin and multipara, when due to constitutional derangement (anemia, chlorosis, tuberculosis), with general tonics first, but not locally. Author is opposed to local treatment, even in local infection when accompanied by acute inflammation of the uterus and appendages, the parametrium and the pelvic peritoneum. First, the inflammation of the appendages should be treated. Intrauterine treatment should follow dilatation of the uterus (specially by laminaria), with liquid medications (tincture iodine, liquor ferri etc.), which are introduced by Playfair's probe, or solid medication, such as iodoform, etc. F. discarded the washing out of the uterus and instead treats chronic catarrh, by filling up the cavity of the uterus partly with gauze and partly with gauze impregnated with iodoform, thymol, etc.

The principal treatment is abrasio mucosa, which is available only in the absence of inflammatory condition of the uterus or its appendages. Author recommends Simpson's spoon and for the inexperienced the elastic spring curette.

In endometritis cervi, F. orders, first, the washing out of the vagina and then tamponing with cotton, which is impregnated with iodoform, thymol and zinc chloride. Then aside from the catarrh, hypertrophy of the nerve exists; an excision of the mucous membrane is made after Schweder, or a wedge shaped incision of the lips, which, as Martin pointed out, helps the involution of the enlarged uterus caused by metritis.

ON THE INTERNAL APPLICATION OF CANTHARIDIN IN CYSTITIC AFFECTIONS.

A. Freudenberg, Wiener Klin. Wochenschr, 1895, No. 23.

Author experimented with this drug in 56 cases of cystitic affections. It was administered in a solution:

R—Cantharidin	0.001
Alcohol ad. sol.	1.0
Aquæ dist. ad.	100.0

M. Sig.—Teaspoonful t. i. d.

In five cases no effect was noticed; they, however, defied all other medications, as well as surgical operations. In 19 cases the action was moderate or questionable, the remaining 32 cases entirely cured. In numerous cases recovery was very speedy. Author, from his experience, thinks useless the application of this drug, when after 3 or four days a decided improvement is not noticed. Cantharidin is very efficient in stranguary, has the quality of clearing the urine next to santal, but has the advantage of being cheaper, tasteless and free from after effects in the doses and form stated; does not produce brassiness in the stomach or albuminuria. An eruption similar to that of measles was noticed in one case.

THE DOCTOR AND HIS PATIENT.

The physicians in Kamenitz, Poldsk, submitted to the press and public the following laws for physicians and patients:

1. It is necessary that a patient having selected a physician whom he trusts, affords him the possibility of carrying through the disease; in every case not to consult others without the knowledge of the physician is essential for the patient's benefit.

2. Physician knowing that another physician had charge of the case, should insist of having a consultation with that physician.

3. The physician on his part must devote all his attention and his knowledge for the benefit of the patient, who entrusted him with his health, to visit him as often as he finds it necessary, avoiding needless expense to the patient, which causes difficulties and tends to lessen the physician's authority. Note.—To avoid misunderstandings, it is desirable that the patient and physician have a prior arrangement as to the conditions of treatment.

4. The sick ought to know that only physicians recognized as such by the medical faculty are competent to diagnose and treat diseases; hence, patients ought not accept the advice of midwives, charlatans, etc., whose treatment usually complicates matters for the physician who follows.

5. In doubtful and grave cases the physician should advise consultation and never refuse when patient asks a consultation.

6. Patient should openly and truthfully reveal to the physician the causes of his illness, and all pertain-

ing to the same; remembering that the physician owes by law and with promise to the medical faculty to sacredly guard the secrets revealed to him by patients. Physicians even after treatment have no right to reveal the patient's general or domestic life, his mental deficiencies, depravities, etc.

7. If a physician accidentally visits a sick friend, and who is under the care of another physician, he is not to allude in any way to the sickness or to the method of treatment, as the caller physician unintentionally may cause distrust to the attending physician, which influences the progress of the patient.

Odessa is to have a medical college. Plans are ready. The anatomical theatre and laboratory is to cost 319,150 rubles; the wards, 386,880 rubles; yards and laying out the grounds, 43,970 rubles; two new buildings on the university grounds for chemical and physical laboratories, 200,000 rubles; other items amount to 250,000 rubles. The wards are to hold only 175 beds instead of 250, as it was proposed at first.

—Wratch, Nov. 3, 1896.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

RESULTS OBTAINED BY OPERATION IN TUBERCULOUS PERITONITIS.

By Israel, *Revue de Ther. Medico-Chir.*

This surgeon operated on four cases of tubercular peritonitis, curing all. Three were children from four to seven years of age. Before he closed the abdomen he freely applied over the peritoneum a mixture of 10 per cent. iodoform in olive oil. He does not believe that evacuation of the fluid will explain a cure, because in many there is very little. Complete cure follows his method in about 30 days.

Acute inflammation is no contra-

indication. The fourth case was a young man about 20. Tuberculous tumor was found involving the ascending colon. This had such extensive adhesions that it could not be dislodged. In order to get by the stenosis an anastomoses was made between the ileum and descending colon. After thorough lavage, iodoform was applied, and the abdomen closed. The patient made a good recovery.

MASSAGE IN GYNECOLOGY.

By. M. Ponomereff, *Rev. de Ther. Medico Chirurg.*, Feb. 12, 1896. P. 121.

The above surgeon has had most

gratifying results by the employment of massage in various pelvic complaints in the female.

We highly recommend it for subinvolution of the uterus, especially after miscarriage. Besides, it will generally succeed:

In chronic metritis with sclerosis of tissue, accompanied with endometritis and dysmenorrhea.

In such cases of displacement of the uterus or ovaries, it acts by imparting fresh energy to the muscles and ligaments.

In peri or parametritis, massage aids in the absorption of inflammatory deposits, in liberating adhesions and restoring healthy function.

It is only contra-indicated in pregnancy, in acute inflammatory or suppurating conditions. The technique is simple. After lavage of the vagina and rectum, two fingers of the left hand are introduced, while with the lubricated right hand motion is freely made over the uterus. Such treatment may be applied every second day; its duration lasting from five to ten minutes each time.

SUTURING WOUNDED ARTERIES.

Heideman (Cent. f. Chir., 1895, vol. 49, p. 113) reports an interesting case of suturing a wounded artery. He was operating for the removal of a cancerous part, when he accidentally opened the axillary artery. At once he closed the vessel above with a clamp. Then he applied a continuous catgut suture through the incised artery, the wound being one centimetre in length. He then packed the opening in the axilla. Forty-eight hours later he removed the tampon, when he found the incision in the vessel soundly healed. Recovery was prompt. Six months later, he saw the patient. There was no recurrence of disease, nor sign of aneurism at seat of wound in the artery.

The author cites a case similarly treated by Israel—suture of common iliac, and by von Zoege Mantauel—suture of femoral.

Note by the translator—It should be more generally known that in wounds of any of the peripheral ves-

sels they may be readily closed and thus mortal hemorrhage averted or a limb spared. Pressure alone will subdue venous leakage, and by repeated experiment on the dog, I have, without difficulty, several times sutured incisions deliberately made in the walls of the femoral, axillary and carotid arteries. The dangers attending the preceding are, first, coagulation above point of temporary constriction and the other damage to the vessel by too much pressure.

T. H. M.

SHORTENING OF THE FEMUR: ITS CAUSES AND SIGNIFICANCE.

In all cases of shortening of the lower extremity it is highly essential to investigate the condition of the neck of the femur. If this plan be followed, as a regular rule, the explanation of many cases of shortening, otherwise puzzling, will be rendered plain. The causes of shortening of the femur may be classified as follows, viz.:

(a) Impacted fracture of the neck of the femur.

(b) Arrest of growth of the neck, following disease, the result of injury.

(c) Disease of the hip joint.

(d) Arrest of growth at the lower end of the femur from disease of the epiphysis.

(e) Arrest of growth of the lower end of the femur, following disorganization of the knee-joint.

When the shortening of a leg amounts to a quarter of an inch and no more, the defect may be disregarded; oftentimes this is present naturally. Again, half an inch shortening is by no means infrequent after fracture of the thighs. In measuring for any shortening that may be present in a lower limb, it is a good plan first to compare the length of both limbs from the top of the great trochanter to the external malleolus. If the measurement be the same on both sides, then it is obvious that the shortening must be confined to the neck of the shorter femur.

—Thomas Bryant, F. R. C. S., in Med. Press and Circular.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

THE SURGICAL TREATMENT OF RETRO-DEVIATIONS OF THE UTERUS.

Augustin H. Goelet, M. D., in a paper upon this subject, read before the Society for Medical Progress, New York, declared that displacements of the uterus demand more careful consideration than is usually accorded them, and that the routine plan of inserting a pessary and dismissing the case from further attention is a serious error. He thought that the majority of cases, especially those of long standing, where structural changes have taken place in the wall of the organ, require surgical intervention for their cure. The pessary alone is not sufficient except in recent cases, because of the concomitant metritis and endometritis which must be overcome before a radical cure can be effected.

After discussing the merits of Alexander's operation and the intra-peritoneal methods of shortening the round ligaments and vaginal fixation, he described a method which he had employed with success for the past twelve years.

The Alexander operation, which is only appropriate in movable retro-deviations, is unnecessary, its chief disadvantage being the length of time it requires and the prolonged convalescence it entails.

Where the uterus is fixed by adhesions he advocated opening the abdomen by means of a small incision and suspending it from the anterior abdominal wall—not fixing it. This was preferred to intra-peritoneal shortening of the round ligaments because it consumes less time, and it has given very satisfactory results. It is preferable to ventro-fixation, because the uterus is not fixed, but movable.

Vaginal fixation he thought objectionable, because it substitutes a fixed anti-flexion for a movable posterior displacement. The recent unfavorable reports concerning complications during labor, following it, offers another very serious objection to this operation.

The method of procedure which he advocated in place of Alexander's operation for movable retro-deviations has this to recommend it, viz., that it aims at a cure of the co-existing metritis and endometritis, the maintaining cause of the displacement, and requires but a week's confinement in bed.

In retroversion he dilates the canal, packs the cavity with iodoform gauze and tampons the vagina with the same gauze in such manner as to throw the uterus into a position of ante-version. This dressing is removed every day, the cavity is washed out with a one per cent. solution of lysol, and it is reapplied. This is done for a week, and the patient is confined to bed. Then a vaginal pessary is fitted to hold the uterus in a correct position. The cavity is irrigated twice a week until a healthy endometrium is reproduced.

In retroflexion the same procedure is adopted, but, instead of the gauze packing he uses a straight glass drainage stem, which is inserted and serves the purpose of a splint, and keeps the uterus straight. It is then maintained in a position of ante-version by means of a vaginal tampon of iodoform gauze. At the end of a week a vaginal pessary is inserted, and the patient is permitted to get up.

The success which he has obtained with this method leads him to believe that the other more complicated operations designed for movable retro-deviations are unnecessary.

BACTERIA OF THE VAGINA OF THE NEW-BORN.

In an article by Dr. Charles Jewett, on this subject, he says: "On account of the great significance attached at the present time to the vaginal secretion and its bacteriological contents in women during and just before the puerperium, the following series of examinations has been made upon new-born female children, for the purpose of determining the presence or absence of bacteria.

The first extensive investigations upon this subject were reported by Stroganoff (Petersburger Dissertation, 1893). He examined forty-four girls at intervals of from five minutes to several days after birth. The conclusions are that in the large majority of cases bacteria exist in the vagina within five hours after birth. The first bath is a powerful factor in the introduction of germs. The reaction of the secretion is acid. Pathogenic organisms were not found in any case.

Vahle (Zeitsche. fur Geb. und Gyn., Vol. xxxii) found that the best method to remove the culture from the vagina was through a slender glass funnel, which was sterilized and passed into the vagina.

The paper gives detailed accounts of the 75 cases which were thus examined. Staphylococci, streptococci, bacillus commune coli, and a great variety of named and unnamed, motile, and stable forms of bacteria were found.

The principal conclusions from the investigation are:

1. The vagina remains sterile for at least two hours after birth.

From this time until the third day micro-organisms may or may not be detected; the number of cases where bacteria are found gradually increases as time goes on, and the bacteria free secretions diminish. After the third day micro-organisms are always present in the secretion of the vagina.

2. Pathogenic organisms are relatively frequent: staphylococcus pyogenes albus and aureus are observed in four per cent. of the cases; streptococci, in 14.6 per cent. of the cases.

—Brooklyn Med. Journal.

OBSTETRIC ANTISEPSIS.

G. Lefour (Nouv. Arch. d'Obstet. et de Gyn., X Anec, No. 9), contributes the following account of the antiseptic practice in his lying-in service in Bordeaux: On admission the pregnant woman is conducted to a dressing room, where she receives an entire change of clothing. From the dressing room she passes immediately to a bathroom, which is reserved for the use of entering patients. She is bathed in water containing carbonate of sodium, and is then dressed in a hospital suit of prescribed pattern, which has been sterilized. She is now received in the dormitory for pregnant women, to await confinement. Here the routine is as follows: Each patient receives a full bath two or three times weekly. The baths are alternately of sublimate and of sodium carbonate solution. Every morning the women are taken to a special room called the Salle d'Examen, where they are subjected to a thorough verbal and physical examination. The toilet of the external genitals is especially rigid and is managed by the midwife pupils. After a careful soap and water scrubbing the parts are washed well with a warm sublimate solution, 4-1000. Since the adoption of the present antiseptic regime the mortality and morbidity have been greatly reduced.

—Brooklyn Med. Journal.

DETERMINATION OF SEX.

Seligson (Bost. Med. and Surg. Jour.), in a preliminary article on the subject of the cause and determination of sex, advances a few interesting facts in support of the theory that ova from the right ovary develop into males; those from the left into females. Rabbits, from which the right ovary has been removed, bore only female young, while those from whom the left had been extirpated brought forth only male. Again, in all the cases of tubal pregnancy of which the author could find notes, where the sex of the fetus was given, nineteen in all, those of the right side were always males, those of the left females. These points would seem to merit further investigation.

THE WALSCHER POSITION FOR LABOR.

It has long been known that there is a certain amount of mobility in the joints of the pelvis, especially during pregnancy. But it remained for Walscher (1889) to show that the antero-posterior diameter of the pelvic inlet varies with the position of the body. The sacro-iliac synchondroses are true joints with synovial membranes, articular cartilages and strong supporting ligaments. The innominate bones revolve to a limited extent about the sacrum, upon an axis passing through the sacrum, several centimetres below the level of its promontory, and Walscher found that when the pelvis is, as it were, extended, the conjugata vera is from nine to fifteen millimetres longer than when flexed upon the trunk. The universal position of a woman, when the forceps are applied, has been upon the back or side, with the thighs flexed upon the abdomen; in this position the symphysis pubis approaches the promontory of the sacrum, and the true conjugate of the pelvic inlet is shortened six or seven millimetres. On the other hand, if the thighs are forcibly extended, with the patient upon her back and her lower extremities hanging down over the edge of a table or bed, considerable traction is exerted upon the anterior portion of the pelvis; it is forcibly extended, and the conjugata vera is lengthened six or eight millimetres.

The increase in length, therefore, of the antero-posterior diameter of the pelvic inlet in the Walscher position over that in the position universally assumed is from one to one and one-half centimetres. By placing women in this position in the first stage of labor, Fehling and others have secured spontaneous births in cases where forceps or other instrumental means had been necessary in previous labors. It must be borne in mind, however, that the Walscher position is of value only when the head is at the superior strait; after a head has entered the pelvic cavity this position should be dispensed with, as by the sinking in

of the lower end of the sacrum and coccyx the antero-posterior diameter of the pelvic outlet is shortened.

—Am. Gyn. and Obs. Jour.

THE FEMALE PELVIS IN PRIMITIVE RACES.

Stratz (*Nederlandische Tijdschrift van Verloskunde en Gynecologie*, Sixth year, Part 1, 1895) investigated a series of cases in Java to test the accuracy of certain theories in respect to the relative characters of the pelvis in European and in barbarian or semi-civilized women. Faayer, of Leyden, declared twenty years ago that the Javanese pelvis was unusually round at the inlet. Stratz reminds obstetricians that this theory was based on the examination of a few macerated pelves. He, therefore, measured a large number of pelves of Javanese women living up country. Two races were included in his series, the more primitive being darker, more slender and smaller. The measurements showed little or no difference more than could be explained by the small general proportions of one of the races. The same may be said of the difference between the average Javanese and European pelvis. As it happens, however, the theory of Faayer seems substantially correct, the transverse measurement of the Javanese pelvis being, on an average, relatively small. The obstetric teacher should also bear in mind that Stratz found plenty of contracted pelves among these primitive women, who, escaping the evils of civilization, do not enjoy its benefits.

—University Med. Mag.

LACTATION AND SYPHILIS.

Havas (*Centralbl. f. Gynak.*, No. 32, 1895) has published in a Hungarian medical journal an important communication on the moral and medical aspect of this question. He concludes that a syphilitic infant should be suckled by its mother, or, if she cannot secrete milk, by a syphilitic nurse, or, if there be no such wet nurse available, by artificial feeding. It is wrong and dangerous for a healthy nurse to suckle a child whose parents are syphilitic.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

EUCALYPTOL.—Colorless liquid with camphoraceous odor. Insoluble in W., miscable in A., E., C. and oils. Externally as a stimulant in rheumatism and neuralgias and in the antiseptic treatment of ulcers, gangrene, etc. Antitubercular, antiseptic, antimalarial. Dose, 10 to 15 drops in capsules or oily emulsion. Inj. same dose in oil. Antispasmodic (asthma by inhalation).

EUGENOL (EUGENIC ACID).—Aromatic, oily liquid, turning brown on exposure to the air. Powerful antiseptic, superior to phenol. Suited for dentistry. Febri-fuge. Dose, 45 min. daily.

EUGENOL ACETAMIDE.—Lustrous crystals soluble in W. A. Local anesthetic in dentistry. Not in the market.

EULYPTOL (ULYPTOL).—Said to be a mixture of carbolic and salicylic acids and oil of eucalyptus. Antiseptic, etc. Not in the market.

EUONYMIN.—Resin from *Euonymus atropurpureus*. Brown or greenish brown hygroscopic powder, soluble in water, almost insoluble in Alcohol. Hepatic stimulant. Laxative. Dose, one-half to 3 grains.

EUPHORIN. (PHENYL-URETHANE).—White crystalline powder, with faint aromatic odor. Insoluble in W., soluble in A. and diluted A. Antipyretic, antirheumatic, analgesic in neuralgia, etc. Applied pure in ointment in venereal and other ulcers. Dose, 6 to 10 grs., 3 or 4 times daily.

EUROPHEN. (DI-ISOBUTYL ORTHOCRESOL - IODIDE).—Amorphous, bulky, yellow powder, of faint, saffron-like odor. Solubilities

same as iodoform. Incompatible with starch, metallic oxides and mercurials. Decomposed by light and heat. Antiseptic, cicatrisant substitute for iodoform, in same doses.

EXALGIN. (METHYLACETANILID).—Acicular needles, difficultly soluble in cold, readily in warm W., A. Antineuralgic, analgesic. Dose, one-half to 4 grs. in powder or elixir. Max. single dose, 5 grs., daily 12 grs.

FERRATIN.—Reddish-brown powder, containing 6 per cent. of iron in organic combination. The iron element of food. Tonic, etc. (Anemic conditions). Dose, 4 to 5 grs., 3 or 4 times daily.

FERRIPYRIN, or FERROPYRIN.—Compound of antipyrine and iron chloride. Hemostatic and iron tonic for anemia, chlorosis, etc.

FLUORESCEIN. (RESORCIN-PHTHALEIN).—Resorcin derivative. Reddish brown powder, soluble in A. and alkaline solutions. Used in ophthalmology to stain abrasions of the cornea.

FORMALDEHYDE.—40 per cent. solution. (Syn., Formic aldehyde, Formol, Formalin, etc.); the 40 per cent. aqueous solution, antiseptic, deodorant, etc.

FORMALIN. (FORMOL).—A 40 per cent. solution of formaldehyde gas in water. Antiseptic, deodorant. For sick room use spray of 1 per cent. solution (formalin, 1 oz., water, 4 ozs.). Does not affect delicate fabrics. Preserving anat. specimens, etc.

Dusting Powder, containing 20 per cent. formalin.

Formalith. Tablets of kaolin, 50 per cent. formalin.

FORMANILID.—Prismatic crystals, soluble in water and A. Analgesic, anesthetic, antipyretic and hemostatic. Dose, 4 to 8 grs.

GADUOL (Alcoholic Extract of Cod Liver Oil. *Morrhual*).—Brownish-yellow, oily liquid; bitter, acrid taste. Same uses as cod liver oil. Dose, 5 to 16 min. in capsules.

GALLACETOPHENONE. (**GALLACOTOPHENONE**).—Pyrogallol derivative. Pale yellow powder, soluble in hot water, A., E., glycerin and in 30 per cent. solution of sodium acetate. Substitute for pyrogallol, as harmless, non-staining, effective application in psoriasis and eczema. Applied in 10 per cent. ointment.

GALLAL (**BASIC ALUMINIUM GALLATE**).—Brown, amorphous, insoluble powder. The stable, double ammonium salt crystallizes in lamellae and is soluble in water. Topical astringent, disinfectant (ozena, etc.). Not in the market.

GALLANOL (**GALLIC ACID ANALID**).—Small white, odorless crystals, slightly bitter taste, soluble in A., E., hot water; insoluble in benzine, C., cold water. Substitute for pyrogallol and crysophanic acid. Non-toxic, non-staining application in psoriasis or eczema, in 2 to 10 per cent. ointments or dusting powder.

GALLOBROMOL (**DIBROMGALLIC ACID**).—Fine white needles, soluble in 9 cold water, freely in hot water, A., E. Germicide, antiseptic, astringent, 2 to 4 per cent. solution (gonorrhea, etc., by injection). Sedative. Dose, 30 to 40 grains, without the depressant effect of potassium bromide.

GLUTIN-PEPTONE SUBLIMATE.—Contains 25 per cent. of mercuric chloride. White, lustrous, hygroscopic, soluble powder. In commerce mostly in 1 per cent. solution. Prompt, efficient mercurial in syphilis. Dose, 1 Pravaz syringe-ful of the 1 per cent. solution subcutaneously (1.8 gr. mercuric chloride). Not in the market.

EMOL.—A substance analogous to Fullers earth. Occurring as a clay

in Perthshire. Used in dressing wounds.

ERGOTELE.—A concentrated, permanent preparation of ergot, two and one-half times as strong as the fluid extract. It does not produce nausea, and when used hypodermically causes no irritation. Dose, 5 to 20 minims hypodermically, or 30 minims by the mouth.

ERYTHROPHLEINE **HYDROCHLORATE.**—Yellowish granules easily soluble in water. Local anesthetic; slower, but more intense than cocaine. Applied in 1-20 to 1-10 per cent. solution as collyrium or injection.

ESERINE SALICYLATE.—Colorless or yellowish, lustrous crystals, soluble in 150 water, 12 A. Solutions turn red. In ophthalmic practice 1 to 3 in 450. In convulsive affections and deficient peristalsis. Dose, 1-100 to 1-50 gr. Sulphate is used for colic in horses and cattle in doses of one and one-half gr. Antidotes—Chloral, atropine, artificial respiration, etc.

ETHYL BROMIDE.—(**BROM-ETHYL, ETHER BROMATUS, MONOBROM-ETHANE**). Not to be confounded with ethylene bromide. Colorless, limpid, volatile liquid, with sweet chloroformic odor and burning taste. Not miscible with water. Decomposed by light and air. General anesthetic in minor surgery, inhalation of 3 to 5 or 6 drachms producing anesthesia in 30 to 60 seconds. First pour a few drops in the mask, then about 2 drachms. Caution required with consumptives or those with cardiac or renal diseases. Internally in 5 to 10 drop doses as sedative anodyne.

ETHYL CHLORIDE (**MONOCHLOR-ETHANE**) gas at 50 degrees F. in sealed tubes for local anesthesia. Break off point of tube, hold in hand 6 to 10 inches from point to be anesthetized. Very inflammable.

ETHYL IODIDE.—(**HYDRIODIC ETHER**.) Colorless, neutral, non-inflammable liquid, very volatile. Alterative (chronic rheumatism, serofula, secondary syphilis). Dose internally 3 to 9 minims., in cap-

sules. Antispasmodic resorbent (bronchitis, asthma, chronic laryngitis) 10 to 15 drops by inhalation.

ETHYLENE BROMIDE. (DI-BROM-ETHANE).—Not to be confounded with ethyl bromide. Brownish liquid, with a chloroformic odor and taste. Insoluble in W., soluble in A., E., C., oils. Poisonous when inhaled. Sedative, substitute for bromides in epilepsy. Dose, 6 to 12 drops in capsule or emulsion, 2 or 3 times daily.

ETHYLENEDIAMINE TRICRESOL.—A mixture of 19 parts each of ethylenediamine and tricresol, dissolved in 500 parts of water. Clear, colorless liquid, turning yellow on exposure to air. Disinfectant. Instruments are not attacked by weak solutions.

GOLD MONOBROMIDE.—Yellowish-gray, very friable mass; insoluble in W. Antiepileptic, antisymphilitic. Dose 1-8 to 1-5 gr. Anodyne (migraine, etc.), 1-20 gr., twice daily before meals.

GOLD TRIBROMIDE.—Soluble in water. Therapeutics and dose same as mono-bromide.

GUAIACOL (METHYL P Y R O C A T E C H O L; M O N O - M E T H Y L - C A T E C H O L). — Constituent of creosote. Colorless or

light straw-colored, limpid liquid, of agreeable, aromatic odor. Soluble in A., E., benzine and 90 W. The C. P. occurs in crystals, but is not dispensed except when "crystals" are ordered. Antitubercular. Dose, 1 1-2 min., increased to 5 min., thrice daily, after meals.

GUAIACOL BINIODIDE.—Reddish brown powder, soluble in A. and fixed oils, insoluble in water. Has an odor resembling iodine. Is easily decomposed. Recommended by the discoverer, Vicario, as an antitubercular.

GUAIACOL CARBONATE.—White, neutral, crystalline powder, with very slight odor and taste. Insoluble in water, sparingly soluble in A. Contains 9 1-5 per c't. guaiacol. Daily dose, 6 to 8 grains, gradually increased to 90 grs.

GUAIACOL PHOSPHATE.—Hard, colorless tablets. Insoluble in W., A. and petroleum, ether; soluble in C. and acetone. Contains 92.25 guaiacol and 7.75 phosphoric acid. Tonic, etc., in tuberculosis. Very well borne. Dose, 6 to 15 grs.

GUAIACOL SALICYLATE.—GUAIACOL-SALOL; SALICYL-GUAIACOL.—White, insoluble powder, with little odor or taste. Antitubercular and intestinal antiseptic. Dose, 15 grs.



The American Medical Publishers' Association will hold its third annual meeting in Atlanta, Ga., Monday, May 4, and, considering the many recent applications for membership, a large attendance is assured. A number of new and important topics have been suggested for discussion, and the programme will include papers from experienced publishers. Members and others desiring to contribute papers will be furnished valuable information upon communicating with the secretary,

Charles Wood Fassett, St. Joseph, Mo.

Charles Wood Fassett, secretary of the American Medical Publishers' Association, has just issued a revised edition of the "Medical Journal Exchange List," containing the names and addresses of all publications in the United States and Canada devoted to medicine, surgery, pharmacy, hygiene, microscopy and allied sciences. This list is printed upon adhesive paper, and is used exten-

sively by publishers in mailing their exchanges, as well as by scientific writers in sending out reprints, etc. Price, \$1.25 per dozen complete sheets. (Furnished free to members of the association).

ATTACKS OF STRIDULOUS LARYNGITIS COINCIDING EXACTLY WITH THE APPEARANCE OF CERTAIN TEETH.

Coulon (*La Medecine Infantile*, 1895, ii, 643) reports that three to seven days before the appearance of the first tooth, at eight months, of the inferior canines at nineteen months, and of the last molars at twenty-four months, there were attacks of false croup, coming on in the middle of the night and lasting a few hours. Constipation, followed by diarrhea, also usually preceded by a few days the cutting of every tooth.

—Pediatrics.

DEFECTIVE HEARING IN SCHOOL CHILDREN.

In an annotation the *Lancet* for November 23, 1895, draws attention to passages on defective hearing in school children, in Wehner's book on school hygiene. In the schools of Stuttgart, Weil found that 35 per cent. of the children had some defect of hearing, and Moure, among the schoolchildren of Bordeaux, found 17 per cent. affected. The subject is of importance in every country, not only from the children's, but from a national point of view, and everyone must agree with the *Lancet* in thinking that it furnishes an argument in favor of having medical inspectors who would examine the children with regard to defects in hearing and also in other matters such as ocular troubles and hygienic surroundings. Adenoid growths are responsible for the majority of aural diseases in children, and the importance of treating them in an early stage cannot be overestimated. Many troubles, besides defective hearing, can be directly traced in after life to adenoid growths, all of which troubles could have been averted by a timely and simple operation in childhood. Otorrhea has not even yet been properly recognized as a menace to hearing and

life by the general public, especially among the poorer classes. The appointment of medical inspectors for our board schools would be of the greatest benefit.

—Pediatrics.

CHRONIC ALCOHOLISM IN A 6-YEAR-OLD CHILD.

Coulon (*La Medecine Infantile*, 1895, ii, 638) reports the case: The child, a girl, was born when the mother was 48 years old, and the family history was alcoholic. She was brought up on the bottle, and at the age of 4 years was put out to board for 18 months. During this time she was taught to take coffee, wine and cognac regularly. On her return home she was found to be emaciated, without appetite, and subject to frequent daily attacks of vomiting and to constant abdominal pains, sometimes of extreme intensity. Immediately, alcohol was almost entirely stopped, and certain nervous symptoms developed, which resembled delirium tremens, fits of anger, agitation, profuse sweating, attacks of unconsciousness, and, again, of unreasoning fear.

There was also a persistent diarrhea, associated with tenesmus. Dilatation of the stomach was present, but no other organic changes could be detected.

—Pediatrics.

PREGNANCY WITH APPARENTLY IMPERFORATE HYMEN.

Braun (*Centralblatt für Gynäkologie*, No. 23, 1895) was consulted by a newly-married woman, who had found herself unfit for complete connection. He examined and found a virginal appearance of the external parts, a tight and narrow hymen, and pregnancy advanced to the fifth month. The patient had a generally contracted infundibuliform pelvis, and craniotomy was needed at the end of pregnancy. Braun notes that penetration must have been impossible in this case, where pregnancy occurred before the patient suspected it.

—University Med. Mag.

CASES OF EXTENSIVE OPERATIONS ON THE GENITALS.

Mr. Page showed the following cases: (1) A man who had been brought before the society a month

before with epithelioma of the penis, scrotum and inguinal glands, and now produced him after operation. The inguinal glands on both sides, the penis, scrotum and testicles had all been removed, and the wound was almost healed. The man's existence had, at least for the time, been made tolerable. (2) A girl of 6, convalescent, from a solid ovarian tumor weighing nine and three-quarter pounds, which had been removed from her abdomen. Microscopically the tumor was fibro-sarcoma. So far as could be ascertained by Mr. Page this was the youngest child who had recovered after removal of a sarcomatous ovary.

SYPHILIS IN THE ARMY VS. LICENSED PROSTITUTION.

In the French army the largest proportion of venereal disease was found in 1875—74 per 1000. In the English army the proportion was 139 per 1000. The highest figure was reached two years later, 274 per 1000, while in the French army the figure stood as low as 52 per 1000. From the figures it may be concluded that venereal disease is much more frequent in countries where free prostitution exists than in those where it is licensed. It should not be inferred from these statistics that the English soldier is more immoral than his Gallic confrere. The French soldier, if he has the means, can provide himself with a mistress—an institution unknown, as a rule, to the English soldier. Clandestine prostitution is greatly on the increase in France, especially since restrictions have been in great measure removed from the opening of liquor shops.

—Edinburgh Medical Journal.

RABIES AND CATS.

An epidemic in Paris of "enraged cats," as the French call them, says the Morning, has called forth some interesting statements from Dr. Chaillou, of the antirabic staff at the Pasteur Institute, in that city, where from 1500 to 1800 persons bitten by mad animals are treated annually. "Contrary to the popular belief," he says, "cats go mad frequently, and about 5 per cent. of the cases we treat are caused by bites inflicted by

them. Horses and other domestic cattle are rarely subject to madness. The bites of cats which have gone mad are generally serious and difficult to treat, for two reasons: First, the teeth of the cat are fine and sharp, and the wounds they make are deep, introducing the virus into the system thoroughly. The dog, on the other hand, has larger, blunter teeth, which tear rather than penetrate. Cauterization is excellent if done immediately in the case of a dog bite, but when the wound is caused by a cat's teeth it is impossible to cauterize more than the edges, while parts below the surface remain impregnated with the virus. In the second place, the dog bites at the hands or legs of the person he attacks, and not often at the face, while the cat almost always attacks the face first, for it can jump more easily, and clings with its claws to the clothing.

—British Med. Journal.

PUBERTY IN INFANTILE HEMIPLEGIA.

Leblais (Publications du Prog. Med), states that observations made by him in M. Bourneville's clinic show that certain trophic changes associated with infantile spasmodic hemiplegia are only to be noted as puberty. Differences in the size of the testicles were noted in eight out of twenty-nine boys examined. In seven of these the testicle on the hemiplegic side was smaller than on the sound side; in one it was larger. Retention of the testicle in the inguinal canal seemed to be more common than among normal children. Among the girls the only abnormality noticed at puberty was that in one case the mamma on the paralyzed side was hypertrophied. As a rule, the hair developed at puberty lies well on the paralyzed side, but sometimes the opposite was the case; in others the development took place unequally, but the inequality was not symmetrical; in others, again, development of hair was normal on the two sides. Puberty developed in the hemiplegic children at the same age and with the same phenomena as in healthy children.

—Indian Lancet.

Prescriptions.

From London Medical Times.

WHOOPIING COUGH.

Bromoform is recommended in the treatment of whooping cough, in the following doses:

Six months to one year old, two minims thrice daily; one to two years old, three minims thrice daily; two to three years old, four minims thrice daily; three to four years old, five minims thrice daily; four to seven years old, six to seven minims thrice daily.

It has a tendency to decompose when dispensed in mixtures. With a view to remedying this difficulty, it has been suggested that small quantities of the pure drug should be dispensed in drop bottles, and the number of minims indicated be mixed in a teaspoonful of malt extract, or syrup, as required for use.

ECZEMA WITH DESQUAMATION.

R—Acid salicylic.
Resorcin.
Bals. Peruv.aa gr. 15
Sulph. precip.dr. 1—dr. 2½
Vaseline.
Adepisaa oz. 1½
Ft. ung.
—Thibierge.—Thérapeutique des Maladies de la peau.

CIRRHOSIS OF THE LIVER.

Eldelheit in early cases gives with success:

R—Calomelgr. 1½
Hydrarg. perchloridgr. 1-70
Sacchar. lactis.....gr. 2
Ft. Pulv.
Sig.: One such powder every 12 hours for seven days.

The diet should consist principally of soups, milk and lemonade; and Hunyadi water may be given if constipation is present. Meat, legumens, beer, etc., are not allowed. If the disease is so far advanced that the patient is no longer able to be up, and ascites is present, the above treat-

ment should at first be continued no longer than three days; then but one powder daily or one every other day should be given. If, after seven to ten days, all symptoms of dropsy have disappeared, the treatment may be suspended. As after-treatment, he prescribes Carlsbad water or salt, besides a good diet, moderate exercise and plenty of fresh air.

—Munch. Med. Wochensch.

CHINOSOL.

This body owes its antiseptic and disinfectant properties to the readiness with which it sets free oxycholine, especially in the presence of an alkali. It does not coagulate albumen at ordinary temperatures, and has no caustic action even in concentrated solutions. It may be used for wounds, ulcers, gonorrhea (1-1500, gradually increasing to 1-200), in obstetrical practice, etc.

PURULENT RHINITIS IN CHILDREN.

Dedieu advises nasal irrigations (1-2 to one pint), twice daily, of tepid solutions of boric acid, 5 per cent.; resorcin, 1-2 to 1 per cent.; potassium permanganate, 1-1000. At the same time, four or five times a day, he uses one of the following ointments which is put in the nasal vestibule and sniffed up by the child, or allowed to melt in the nostril, the child lying on its back:

R—Acid boricdr. 1½
Vaselineoz. 1½

Or,

R—Resorcingr. 5
Vaselineoz. 1

When the discharge has lessened considerably he uses a spray of 1-2 per cent. silver nitrate and insufflates:

R—Iodolgr. 10
Acid boricoz. 1
Ft. pulv.

—Gould's American Year-Book, 1896.

OLIVE OIL IN THE TREATMENT OF BRUISES.

Instead of having recourse to applications of arnica tincture, camphor spirit, and to strong compression of the swelling, in the treatment of light bruises, Dr. G. Auger prefers the use of olive oil, both in children and in adults. He applies the oil freely to the contused parts, and rubs the latter lightly with a rag, absor-

bent cotton, or with the fingers, and then covers the bruise with a compress saturated with olive oil. He claims that this treatment gives immediate relief to the patient, and that the formation of a bloody protuberance is often prevented; while excoriations and superficial wounds, which may be present, heal very rapidly.

—Sem. Med., 1895, XV., p. 198.



USEFUL PARAGRAPHS.

Do not iron a red tablecloth; wash carefully in warm suds, not hot; rinse well, and when ready to hang on the line pull it so that it will keep proper shape.

* * *

Before adding flour to thicken anything always make it into a paste with a little cold water, or it will form in lumps.

* * *

A piece of gum camphor in the boxes or bags where silverware is kept will keep it from tarnishing.

* * *

This is the proper way to peel tomatoes: Cover them with boiling water half a minute; then lay them in cold water until they are perfectly cold, when the skin can be slipped off without difficulty, leaving the tomatoes unbroken and as firm as before they were scalded.

* * *

To remove mildew from cloth, put a spoonful of chloride of lime in a quart of water; strain it, and dip the mildewed cloth in it. Repeat if necessary.

* * *

To prevent fly specks, boil three or four onions in a pint of water,

and with a brush go over the picture frames. Flies will not light on articles washed in this solution.

* * *

To prevent pie crust from soaking, glaze the under crust with beaten egg.

* * *

In baking a moderate oven is one in which a teaspoonful of flour will brown while you count thirty; a quick oven, where twelve can be counted.

* * *

Lamp wicks should have the charred part rubbed off with a rag kept for that purpose. They should very seldom be cut. They should not be used so long that the webbing becomes tight and non-porous.

* * *

Discolorations from vinegar, green marks from vegetation, etc., may be removed from bottles in the following manner: Put into the bottle a raw tomato, cut into small pieces, with a tablespoonful of salt, and twice that amount of water; shake well until the stains are removed; then rinse in clear water. Stains of all kinds may be removed by rinsing the bottles first with muriatic acid and afterward with clear water.

* * *

The cleanest way to drive water-

bugs or roaches from bureau drawers or closed shelves is to sprinkle powdered borax over and around the shelves and cover with clean paper.

* * *

Keep a bowl of oatmeal on the washstand, and, after washing the hands, dry them in the meal. The skin will be kept white and smooth and less liable to chap by this process.

* * *

If an iron holder is attached with a long string to the band of the apron while you are cooking, it will save many burnt fingers and scorched dish-towels.

* * *

Yellow stains left on white cloth by sewing-machine oil can be removed by rubbing the spots with a cloth wet with ammonia before washing with soap.

* * *

Kerosene oil is the best of furniture polishes. It cleanses, makes a fine polish and preserves from the ravages of insects.

* * *

Half a teaspoonful of sugar will nearly always revive a dying fire, and it is always a safe thing to use for this purpose.

* * *

Fat will not burn if it has something to do, so if it has to be left idle for a few minutes put a crust of bread or a slice of raw potato into the kettle.

* * *

An excellent cologne may be made with half an ounce of oil of bergamot, quarter of an ounce of oil of lemon, half an ounce of oil of orange, half an ounce of oil of English lavender, half a dram of neroli and one quart of alcohol. Shake the bottle several times a day for four or five days.

* * *

Do not mend a kid glove with sewing silk, for the silk cuts the kid and shows the mend more plainly, while fine cotton thread gives a much more satisfactory result. If a glove is torn put a piece of silk of corresponding shade under the torn part, baste carefully so as not to reveal the stitches on the right side,

and then draw up the rent with cotton thread.

* * *

Soap tree bark makes an excellent cleaning fluid for removing spots from men's clothing or any kind of black goods. Put 10 cents' worth of powdered bark in one quart of soft water and let it steep an hour or more. Strain through a fine cloth into a quart jar and add two tablespoonfuls of alcohol to it. Use a soft brush or a piece of black cloth to rub the soiled places.

* * *

Soap used on the hair is apt to make it brittle. If any is to be used, tar soap is the best, and, after using, rinse the hair in several waters, in which a little powdered borax has been dissolved.

* * *

Chemists say it takes more than twice as much sugar to sweeten preserves and sauces if put in when they begin to cook, as it does if the sugar is added after the cooking is done.

THE CARE OF BABY'S HAIR.

The mother who rejoices during mild weather in the curly head of her baby will possibly find, with the advent of frosty weather, that its hair becomes harsh and dry, and that the scalp appears lifeless, and is covered with particles that look like dried skin or dandruff. During the heated term baby's head perspires freely, and the perspiration keeps the fine locks soft and pliable. The cessation of perspiration produces just the opposite result, and the natural oil of the hair dries up.

Now is the time for the mother to do the work of supplementing nature. At night, when baby is ready for bed, the hair should be parted and the scalp anointed with white vaseline. This is rubbed in gently, but thoroughly. The little one will not object to the proceeding. On the contrary, it will probably be lulled to slumber by the light friction. A piece of linen is laid over the pillow that the vaseline may produce no stain on the dainty slip. In the

morning, when baby is ready for the bath, its head must be lathered thoroughly with tar soap. This done, baby is put in a tub of warm water in which has been dissolved a little borax, and with a soft sponge the head is washed free from all grease and soap. After it is dressed, a teaspoonful of alcohol in two of water is poured on the hair. After two or three applications of the vaseline all dandruff and scaly skin will have disappeared. The use of the tar soap and alcohol should be continued to keep the hair and scalp in a healthy condition. The mother will find at the end of a week that her darling's hair is once more soft and silky, while the golden lights in it will be brighter than ever.

—Harper's Bazaar.

BREAKFAST HINTS.

If you must omit either fruit or meat from the breakfast menu, omit meat.

Do not invariably serve oatmeal. It is the least wholesome and the least appetizing of the breakfast cereals. It eventually thickens the complexion.

Unless you are courting dyspepsia avoid hot pancakes, however delicious.

Remember the crust of bread is more digestible than the soft part, and that coarse grain breads are better than smooth flour ones.

Make the breakfast hour early enough to avoid the rushing of the men to business and the children to school.

—New York World.

CARE OF THE HAIR.

"If you want to keep your hair in good condition you should remember to brush, brush, brush and brush again," says one who has made the care of the hair a life study. "Brushing is absolutely the only means one can use to make the hair glossy, clean and perfectly healthy. Women often ask me what to use to increase the growth of their hair. The hair is very obedient to the treatment it receives, and if that is good and regular, and one is in good health, the hair needs no tonic."

"To what do you attribute baldness?" she was asked.

"It is almost an unfailing sign of intellectual activity. Brain workers are most liable to it. People of the laboring classes who gain their bread with their hands are generally exempt from baldness until they have passed beyond the 60-year mark. Just why this is so, why the working-man who takes no particular care of his head-thatch would be able to preserve it longer than the man who spends much time in having it brushed and shampooed is a mystery not yet explained. The mane of a thoroughbred horse even is thinner than that on the neck of his brother who drags a drag or horse car.

N. Y. Tribune.

MY TREASURE.

BY MRS. J. R. CLAUSEN.

Only a lock of soft brown hair,
Cut from my darling's head;
But it lies beneath my pillow,
As I sleep upon my bed.

Only a lock of soft brown hair,
All that is left me now;
But memory paints the picture
Of eyes, and cheek and brow.

Only a lock of soft brown hair,
So dear to a mother's heart;
That naught of earthly treasure
Could make her from it part.

Only a lock of soft brown hair,
Finer than silken thread;
But I place it neath my pillow,
As I lie upon my bed.

A PHYSICIAN QUEEN.

In Portugal the profession is honored by the graduation in medicine from the Eschola Polytechnica, a college of the highest reputation, of Queen Amelia, daughter of the late Comte de Paris.

A noteworthy act in her early professional career was the attendance upon a sick child of one of her poverty stricken subjects, who recovered from a severe fever under her own management.

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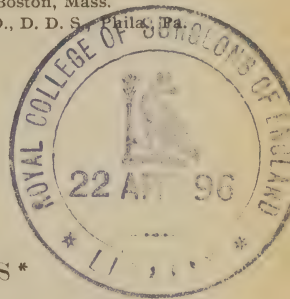
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ANEMIA AND BLOOD MEASUREMENTS *

BY ROBERT T. EDES, M. D., BOSTON, MASS.
Superintendent of Adams Nervine Asylum.



Every step that we make toward definiteness and precision in medical statements is a step forward. Many of us can remember when, if we were describing a case of fever, we said "the skin was hot and dry." Now nobody would be considered to have made anything like a careful report if he omitted to present a chart of the temperature reading to a fraction of a degree.

This is perhaps the most distinct advance that has been made in exactly this direction within our own time, but attempts are constantly being made with new instruments of more or less accuracy and delicacy to put everything in weight and measure.

But there are many difficulties in the way. We cannot measure the force of the heart's beat except through the ribs, we do not feel the pulse or apply the syphygmograph to the artery, but to a skin more or less

resistant, padded by a varying cushion of connective tissue. Accurate chemical analyses of excreta are tedious and often utterly beyond the time of the practitioner, and some of them practically impossible upon the patient even in the neighborhood of well equipped laboratories.

Even yet we must take many approximate estimates instead of precise figures.

Notwithstanding the great desirability of precision it must be remembered that a statement in figures, based upon observations which are not and cannot be accurate, is a very deceptive one and gives only an appearance of trustworthiness not at all justified by a closer criticism.

A percentage of "cures" carried to the first or second place of decimals is not of much value when we do not know whether the man who made them is capable of distinguishing between a pseudomembranous and a catarrhal laryngitis or whether he is talking about the recovery from the immediate consequences of a surgi-

* Read before the Norfolk District (Mass.) Medical Society, March, 1896.

cal operation or the complete restoration to health.

I have been led to make these preliminary remarks to what I at first intended to be a brief exhibition of instruments, by a certain feeling of disappointment and as a sort of apology for not being able to set them forward with as much enthusiastic recommendation as I should like to do. It may be that some of you may be led to study the subject, and the means for investigating it, more closely, and inform us how we may avoid errors and inaccuracies which I have not been able to escape.

We are constantly using the expressions "general" and "local" anemia, without always realizing that we are talking not merely about different locations, but different conditions under the same name. When we say "local anemia" I presume we all mean a diminished supply of blood to the part, as to the brain, spinal cord, kidneys or skin. On the other hand, when we use the term "general anemia" it refers, I think, usually to a deficiency in some of the elements of the blood, i. e., a change in the quality of the blood and not to any known alteration in the whole mass, a condition which cannot be accurately determined at all during life and even approximately only by inference.

The instruments I have to show are intended to measure the quantity of the red corpuscles and the amount of the coloring matter or hemoglobin. The determination of the alkalinity of the blood has been sometimes attempted, as also the specific gravity, but with instruments for this purpose I have nothing to do.

The hematokrit shows with a certain amount of accuracy the proportion of white corpuscles, but with the differential count of these, which is often of so much consequence in the diagnosis of obscure blood diseases it has no relation. The hemacytometer has of course the great advantage of showing not only the number, but the kind of the corpuscular elements present.

This last named apparatus has been the longest in use and is familiar to you. It consists essentially

ly in pipettes for mixing the blood with an artificial serum in a convenient ratio and a cell of graduated thickness, ruled in squares in which the numbers of corpuscles are counted under the microscope. If the drop taken is a fair representative of the mass of the blood, if the drop taken from the mixture is an average drop, and if the squares counted are average squares the result represents the corpuscular richness of the blood. Each one of these "ifs," however, involves a possibility of error, which can be avoided indeed by a sufficient number of repetitions but which, especially the last, demands an amount of time, care, eyesight and patience, with always a lingering doubt of the results, which has for a long time deterred me at least from making any investigations in this direction that I could possibly avoid.

I think it can profitably be replaced, except in cases of suspected idiopathic pernicious anemia, by this other instrument, which measures not the number, but the total mass of corpuscles in a large drop.

It is based upon the principle of the cream separator used in dairies, and consists of two graduated tubes rapidly revolving on a spindle, which makes from eight to ten thousand revolutions a minute. The corpuscles being heavier than the serum go to the outer end and pack down into a compact mass, of which the proportion is read off by the graduation.

The particular form I have here was arranged and improved by Dr. Judson Daland, of Philadelphia, and this instrument made under his direction by Mr. Metzger, of that city. It is now, however, in the hands of Bausch and Lomb, the well-known instrument makers.

In the earlier form of the instrument a diluent, a solution of bichromate of potass. was used. In this one nothing is used, as it is found if the process is gone through with rapidity enough the separation of the corpuscles will take place before it is prevented by coagulation. This it seems to me is the only risk to interfere with its accuracy.

Comparative studies made under the auspices of Dr. Daland show its

accuracy to be at least equal to that of the counting process. It is certainly far less tedious and fatiguing.

In most of the healthy specimens we have examined, the percentage of corpuscles to the whole mass is not far from 45 one way or the other. The tendency to error, if any, is to the side of excess.

For the color of the blood, which is supposed to represent the quantity of hemoglobin, there have been several forms of apparatus, all depending on the comparison of dilute blood with a standard, more or less arbitrarily taken. Of these I have two here. One of Goeters' consists of a measuring pipette, which takes the blood, to be diluted in a graduated tube, until its color is the same as that of the gelatin, colored with picro-carmin, in the other. It is compact and inexpensive, and can be used by daylight.

The next is the one now used more than any other, the Fleischl. The blood is taken in this little pipette, mixed with water in one side of a cell divided along its diameter by a thin partition and compared with a wedge shaped bar of colored glass under the other side, the light being thrown from below by a dull reflector. Yellow lamplight must be used, i. e., that of an oil or gas lamp, as sunlight does not give a similar color on the two sides.

The glass wedge is moved along until both sides of the cup appear of the same depth of color, and the result is read off on the graduated scale.

This is certainly a very elegant little piece of apparatus, but its errors and inaccuracies are such as, whether absolutely unavoidable or not, I have not yet succeeded in avoiding with sufficient certainty to get constant results.

It is evident that, as the whole thing depends upon the comparison of light shades of a mixed color, the varying sensitiveness of different eyes might, and probably does, make a considerable difference in readings by different persons. This makes it impossible to compare minutely statements made by one observer with those of another.

How widely these may vary is shown in these older sheets where the same specimen was read by a number of different persons, usually myself first and then a number of nurses. We usually consider the color sense more delicate in women, but it does not so appear in most of the cases.

Accurate reading is of course shown by the slight variations in the different reading of the same person at the same time, and the improvement in some cases by practice is shown by the lines becoming more nearly even. I think, however, that after a short time the improvement goes no further.

Where a considerable difference between different observers is shown, a part of the error may be accounted for by actual change in the blood which takes place after a time. This, however, does not apply to the series where the readings were made only by myself, and the same nurse who showed herself a careful reader by the slight variations in her own readings.

In looking over these records and after making very considerable allowances for errors of some size in the color tests it appears that there is a wide range of difference in the hemoglobin richness of the blood in various persons. Although this is exactly what we ought to expect in persons in varying conditions of health and nutrition, our figures do not correspond to such differences, but seem to be rather a matter of personal habit, like fat. I have made one table of persons having quite a good count comparatively, yet whose appearance would indicate decided anemia. The complexion of the face is hardly any guide at all to the condition of the blood. The color of the mucous membranes is probably a better one, though I have not the records to show it.

On the other hand, perhaps the most striking list of all is that of a number of nurses, many of whom are very much below par as regards color, and yet who are doing their work well and complaining of no special fatigue.

A singular exception, perhaps the best count of all of them, is found in one who has been night nurse for many months, and who consequently during the short days of winter can have seen but very little sunshine.

It is difficult to avoid the conclusion that there is a wide range of blood richness which is compatible with a fair degree of health and good nutrition, and also with normal condition of the nervous system.

To express it shortly, we might say that, instead of "normal standard" we should say simply "average standard," and recognize the fact that individual cases may vary considerably therefrom without going beyond the bounds of health—that is, of a good working degree of health, if not of the most robust.

This is exactly what we find in regard to another tissue which we often find coupled with blood when

Percentage of
mass of corpuscles
in mass of
blood.

Hemoto krit.

Color.

1	90
2	87
3	81-83
4	28-53-70-70-75-68
5 Low count.	Below 15
6	73-46-68-66-72
7	65
8	70-84
9	68-67
10	78
11	97
12	73
13	81-82
14	81
15	58
16	64
17	90-80
18	68
19	78
20	69-69
21	64-65
22	75-76-66-76
23	66-75
24	36-36-35
25	78
26 40	63
27	67-5
28	63-61-62-75
29 49	68
30	85
30½ 38-5	72-65-61
31	86
32 to 41 Taken with Goovers' instrument	87
42	87
44	63-73
45	44-63
46	80
47	58
48	75
49	87
50	55
51 41-38	70
52 43	45
53 49	65
54 41-42	70-69
55 44-43	65-64
56 40	70
57 35	59
58 43-40	83
59 41	72
60 46-43-5-48-72	81

Percentage of an
arbitrary color
standard (100).

Condition and Appearance.

Dwarf, well nourished, weak, nervous.
Thin, anemic; nervous.
Mod. well nourished; headaches.
Very anemic; depressed.
Pernicious anemic.
Weak, died at home.
Hysterical, complete recovery.
Stout, pale; headaches.
Rather thin; depressed, hypochondriacal.
Well nourished; weak; much improvement.
Rather thin; hypochondriacal.
Weak, fanciful.
Decidedly anemic, rather thin, weak; improvement.
Well nourished; recovery.
Recovery from bronchitis and neuntis.
Well nourished; rapid recovery.
Anemic, thin; recovered.
Melancholia; discharged, insane.
Well nourished, pale.
Well nourished; suspicious and unhappy.
Pale, worn; gained color and strength.
Pale, thin; constant pain.
Gastric; weight increased from 53¾ to 79 pounds.
Neuralgia from typhoid.
Constipation, abdominal pain.
Agoraphobia.
Thin; depressed.
Abdominal pain; later, insane.
Very stout, menopause.
Acute prostration; recovered.
Epilepsy.
Improvement; then again in similar condition.
Thin, pale; bad digestion. Entered again.
Badly fed; notional.
Depressed.
Well nourished; neuralgia.
Weak; hypochondriacal.
Well nourished; good complexion; headaches.
Emaciated; pain; vomiting.
See No. 44.
Large; pale.
Not well nourished; improving.
Good color; moderately strong.
Pale; weak.
Well nourished; now insane.
Tall; up and about; rather pale.
Well nourished; pain in back.
Well nourished; depressed; headache.
Large, well nourished; good color.

61	36	76	Weak, pale.
62	34.5-32		
63	42	44	Hysterical; good color.
64	39	71	Ashy complexion.
65	37	55	Rather thin; slight dyspepsia.
66	44	64	Corpulent.

NURSES.

Miss W.	36	61	About a year here.
Miss S.	33	62	
Miss F.	44	74	Delicate complexion; rather thin face; new nurse.
Miss F.	40	69-85	Night Nurse.
Miss W.	37	62	
Miss G.	31	52	All of these have been with us more than a year.
Miss T.	41	57	
Miss M'C	42	60	

MEN.

Dr. J.	43	83	Strong and well.
Mr. W. (gardener)....		76	Strong and well; not florid.
Mr. B.	42	88	Act. about 20; very strong.
Mr. G.	48	74	
Dr. R. T. Edes.	45	70	Large number of observations, varying considerably.

speaking of nervous affections in particular, i. e., the fat.

We find in the tables that a man of a certain height ought to weigh so many pounds, and we know that when he gets too far away from this standard the life insurance examiners look askance at him, but we know also that moderate variations are of no consequence at all and even great ones not incompatible with long life.

As I have already suggested, we cannot by any possibility measure the total mass of the blood. It is by no means an easy thing to do even after death, and in the physiological laboratory, and I know no reason why the blood should bear an absolutely fixed relation to the weight of the body any more than the fat does.

It is highly probable, however, that deficiencies in the color richness may be compensated by a larger total quantity.

The temporary revivifying effects of the introduction of a large amount of fluid into the system, as in the intravenous salt injection in cholera, are well known, and it is more than probable that in more chronic conditions a maintenance of due pressure and vigor of circulation are of as much consequence as the richness of the fluid circulated. The so-called

"salt frog," who has practically no blood at all in his vessels, retains his nervous irritability for many hours.

Exactly what the limits of health may be within which the proportion of hemoglobin may vary, I certainly should not like to say, until I feel surer than I do now of the limits of error in the methods. Laache gives a variation among thirty healthy persons in the count between 4,392,000 and 5,539,000 in men, and 3,924,000 and 5,000,000 in women.

For hemoglobin (I do not know his method) the corresponding figures are .098, .125, and .084, 110. Our limits would, I am confident, be wider than this.

In conclusion I may say one word about the treatment of functional nervous affections based on the making of fat and blood. I have no wish to discourage the attempt to build them up. It is the most obvious, the easiest, sometimes the only thing to do, but it is not always all that is necessary. Nervous symptoms must be treated through the nervous system, but there is no better foundation to build upon than a vigorous hematic nutrition. On the other hand, a very fair amount of nervous energy may be retained on a basis which is less than the theoretically desirable or even than the most usual figure.

VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

FRIGOSTASIS, OR THE ACTION OF COLD FLUIDS ON NUDE SUR- FACES, AND THE DESTRUC- TIVE ACTION OF HOT FLUIDS IN MAJOR AMPUTATIONS.

Cold diminishes peripheral vascular action, or, when intense, temporarily inhibits all vitality, whereas an extreme degree of heat totally destroys. Herein lies the cardinal distinction in their modes of action, never to be lost sight of: The former suppressing hemorrhage by depressing vital energy; the latter chemically annihilating it. Heat acts as a hemostatic by boiling, roasting or baking the tissues. This is made evident to the senses when the sizzling tissues give forth an odor of roasting flesh, and in amputations when the steaming, scalding fluid sears and blanches the bare, quivering fibres an aroma is given off not unlike that escaping from a pot of boiling soup. This means chemical changes and the death of protoplasm.

If in mutilating wounds or in those surgical conditions necessitating an extensive division of vascular parts our only aim were the suppression of hemorrhage, then thermostasis is without a rival; but the experienced operator well knows that something more than the mere suppression of bleeding must demand his attention. The preservation of structure and the restoration of function are matters of some moment; in other words, something more than a "successful operation" must be kept in view.

At the time when orthodox anti-sepsis had full sway; when in every description of amputation through healthy parts the bare, divided parts were flushed with strong corrosive solution or hot water, I noticed that, although the flaps often sealed up as though glued together, this aseptic union counted for nothing; nay, in

many, the consequences were most disastrous, the resulting stump being often worse than useless. This at first was a mystery to me, for I well remembered in my early hospital internship, when, though primary union seldom occurred after amputation, the stumps could comfortably bear a prosthetic apparatus. When I came to critically investigate the subject, however, the cause of the trouble was simple enough; the irritating solutions had set up an insidious neuritis with bulbar enlargements of the divided nerve trunks or an osteo-myelitis, a widespread fatty softening of bone tissue. In the cancellous ends of the bones this was fearfully destructive. Operators seemed to have forgotten that no tissue in the body, not even excepting the brain itself, is more susceptible to an irritant than nude living bone, which fact so generally precludes us from accomplishing practically anything by the aid of screws, pegs, rings or rivets in compound fractures. More than once in my own and the amputations of others I have had to make consecutive operations for the serious troubles following those irritating chemical and hot fluids. In one case of a mediotarsal amputation six months after amputation in a young, healthy man, though union was prompt and the bones well covered by a thick planar flap, the stump remained as tender as a boil and was the seat of severe pain. On secondary amputation the bones were found of an oily, punky softness, into which the end of the finger could be pushed as through a cheese. This fatty softening extended as far up as the middle third of the leg.

In another case, a boy, in consequence of the same entirely avoidable sequela, on secondary amputation, I had to pass from the ankle to

just close enough to the knee to just spare through this articulation.

For the past five years in amputations in continuity or disarticulation I have wholly dispensed with every description of antiseptics or hot water on the nude parts, depending entirely on cooled sterilized water and pressure. In young, healthy subjects the less fluids of any kind the better. Pressure with sterilized gauze will almost invariably suffice for all bleeding, except that coming from the large trunks which are securely ligated.

It is only important that the operator be patient and maintain steady pressure over the entire field for some moments. The bleeding will have stopped, a layer of coagulated plasma will clothe over the divided

fibres, providing a non-irritating investment, which art cannot imitate.

The subject of the circulation within the various bones of the body, the osseous system, is one which is not dealt with in the average textbooks on anatomy with that fullness and detail essential to those who are called on to treat traumatic or pathological lesions of bone substance in various stages of existence and under divers circumstances.

We have seen that disaster may follow in consequence of chemic changes succeeding the application of intense heat over bone surfaces; the manner in which degenerative changes involving the integrity of it, as induced through the circulation, will next be considered.

ONANISME CHEZ LA FEMME.

BY DR. POUILLET, FRANCE.

Translated from the sixth edition by Dr. F. E. Chandler.

(Continued from last Number)

TREATMENT CONTINUED. CLITORIDECTOMY.

Amputation of the clitoris has been practiced and extolled.

Done with the bistoury, scissors, or with the galvano-caustic knife, clitoridectomy is a very simple operation; the same is true of section of the ischio-clitoridian nerves that has been proposed as a substitute for it, but which is not of equal value.

In our opinion, we should have recourse to this operation only when all other curative methods have failed.

Professor Braun, of Vienna, in the *Annales Medico-Physiologiques*, 1860, gave the same opinion.

Occasionally, success is only temporary. Professor White notes two cases, and Guérin, one (that we have already quoted), where ablation of the clitoris by the cautery in a woman, 27 years of age, caused interruption of her onanistic habits, only until the wound was cured.

A young girl, whom manualiza-

tion had brought to marasmus and whom Robert had cured temporarily by amputating the clitoris, relapsed a few months later.

Generally speaking, however, the operation gives the result expected of it.

In quoting Robert's case, mentioned above, Velpeau adds, "To this fact I will add that I have seen two cases where ablation of the clitoris completely cured a condition which caused the parents of the patients to despair of any relief."

After reporting a case of nymphomania in a woman 35 years of age, where cure followed clitoridectomy. Deslandes quotes the following observation of Bielt's: "Mlle. X., 10 years old, of vigorous constitution and good muscular development, had been addicted to onanism since her second year.

"She owed this habit to her nurse, who, having noticed that handling the clitoris of the child caused it to cease crying, did not hesitate to

employ this dangerous expedient continually.

"The child, having been taught in this way to masturbate, gave herself up to it with the greatest ardor, and soon showed the usual signs of intense physical and moral deterioration.

"Every known remedy was tried and in vain, until the parents consented finally, to a clitoridectomy. This was performed by Dr. Jobert and a complete cure resulted."

Deslandes says, "Many persons are very much opposed to this operation, and demand if it be right for anyone to root out, as it were, sensations that might have been the charm of existence."

Our author states, as his opinion, that there should be no hesitation in performing this operation when it is a question of saving a life, of keeping a mind from the darkness of idiocy or insanity.

He adds also that there is nothing to prove that ablation of the clitoris nullifies absolutely the venereal sense.

He could have been more affirmative still. The clitoris is by no means the only centre of erotic sensation, even if it is the chief one; vaginal and uterine masturbation prove this perfectly.

I will now terminate what I have to say relative to the treatment of masturbation by calling attention to a simple therapeutic measure that has often been successful in my hands. It consists in cauterizing with the nitrate of silver stick the entire mucous surface of the vulva, without forgetting the clitoris and the two surfaces of its prepuce.

Intensely painful for one or two hours, a morbid sensitiveness follows, lasting one week or more. This is of no intensity if the vulvar mucosa is not touched, but becomes unbearable upon its contact with any object.

Forced to cease masturbation, the girl or woman interrupts, for a greater or lesser length of time, her ordinary maneuvers, and if the cauterization be repeated, gradually loses the habit.

CHAPTER VII.

DEDUCTIONS.

This conscientious, if incomplete study of onanism in women, brings us to the following conclusions which sum up the work:

A. Feminine masturbation has existed from the most remote ages. It may be found in all countries and in all classes of society, and seems to be most prevalent where civilization is most developed, where the morals are loosest, and where sexual precocity is most common.

B. Its forms vary according to the age, condition, mode of life or particular likings of the patients combined with their more or less complete knowledge of the varieties of genital pleasure.

C. Its causes are as numerous as varied. Sometimes they are physical, and under this head we must mention the climates, temperaments, idiosyncrasies, morbid conditions, external as well as internal, and the mechanical actions that develop venereal desires or awaken the idea of genital pleasure.

Sometimes the causes are social, that is to say, either inherent to riches, as idleness, so prolific in incitements of all sorts, or inherent to poverty, as misery with its promiscuousness of the sexes and the corruption of the shops.

Masturbation develops often under the impulse of intellectual and moral influences, caused by an unhealthy curiosity and the desire to learn of unknown pleasures, suggested by the sight of obscene pictures or of lascivious movements, by reading shady or highly romantic books, by overhearing "droll stories" or obscene remarks, by frequenting bad companions, by thwarted inclination and by culpable instruction in sexual matters by servants or teachers.

The mature woman may become an onaniste by a train of circumstances of another kind; among these are the innate need of enjoyment at a certain period of life, and the desire to satisfy this need which they are deprived of by the impotence or absence of a husband, the fear of pregnancy, infirmities, slowness in

terminating the venereal act, want of harmony in the size of the copulative organs, unnatural coitus, etc., etc.

Besides the above, we have the innate desire of the male to see the pleasure he enjoys shared by his companion.

Heredity and untimely questioning during confession may be added to the list.

D. Onanistes may be recognized by an ensemble of physical, intellectual and moral symptoms. The face is thin and wan, the eyes dull and lustreless, the glance uncertain, timid, the pupils are dilated and—valuable diagnostic point—deviate slightly from their normal centre; a brownish or bluish circle surrounds the lids, which are reddened, heavy and stuck together in the morning. The body is thin, in spite of a voracious appetite, and afflicted with partial or general trembling; it is feeble, sensible to external influences, to cold especially; their step is not firm and their movements somewhat inco-ordinate. If the onaniste have a wound in process of cicatrization, it heals slowly and becomes covered with recent ulcerations that, according to Baraduc, are pathognomonic of manualization.

In girls not yet nubile, the genital organs are abnormally developed; the nymphæ and the clitoris are prominent, swollen and in continual partial erection.

The vulva and vagina are gaping and moist; their mucosa is of an unhealthy red color and sometimes excoriated or more often pale and discolored.

The onaniste loves solitude; she is sad, taciturn, given to dreaming; her mind is obtuse, incapable of mental application; she is indifferent to the games usually enjoyed by girls of her age; lazy, forgetful, given to lying, and sometimes extraordinarily fond of some companion, or better, perhaps, accomplice.

E. The evils resulting from manualization are more or less severe as the constitution of the patient is sound or weak; if the habit is of ancient date or a recent acquisition, and, especially, if the onanistic maneuvers are repeated with great

frequency or occasionally only. It is, therefore, of great importance that the physician should be thoroughly acquainted with this vice and its sequelæ, so as to be able to treat understandingly many diseases of otherwise doubtful etiology.

The pathological conditions caused by onanism are local and general. Among the former are redness and excoriations of the vulva, rupture of the hymen, erythema and eczema of the thighs, idiopathic leucorrhœa, vulvitis, vaginitis, hypersecretion of Bartolin's glands and their phlegmonous inflammation, symptomatic leucorrhœa, acute metritis and the different chronic forms of the same disease, relaxation and prolapse of the vagina, weakness of the uterine ligaments and uterine displacements, metrorrhagia, possibly carcinoma uteri, incontinence of urine, cystitis, nephritis, partial or general peritonitis, pelvic abscesses, foreign bodies in the vagina, uterus, bladder or rectum, syphilis by transmission, sterility and abortion.

Among the general diseases let us mention epilepsy, hysteria, catalepsy, ecstasy, infantile eclampsia, chronic neurasthenia, the different neuralgias, chorea, encephalitis, softening of the brain and chord, meningitis, paralysis, disorders of hearing, touch, taste, smell, and especially of sight (asthenopia, mydriosis, photophobia, amaurosis), imbecility, idiocy, melancholia, hypochondria, mania, homicidal mania, kleptomania, lypemania, nymphomania, suicidal mania, dementia, general paralysis and imbecility.

The less severe mental disturbances must not be forgotten—bashfulness, irritation, impatience, egotism, apathy, loss of will power, and aversion to marriage and to coitus.

In addition to these we have coughs, loss of breath, thoracic pain, phthisis, hoarseness, laryngitis granulosa, palpitations, leipothemia, syncope, cardiac diseases, anemia.

Finally, we must mention gastralgia and dyspepsia, incomplete assimilation—from which result emaciation and marasmus—flaccidity of the muscles, amyosthenia, rickets, malformation of the spine, etc., etc.

1. The prophylaxis of onanism con

sists in avoidance of all the causes we have enumerated combined with good, sensible hygienic measures, a good education, and a constant, although not obvious surveillance of the patients, their friends and all other persons who come in contact with them.

The curative treatment is more difficult; it is not sufficient to suppress the cause, but we must root out a most tenacious habit.

If we have to do with children or young girls kindness and moral suasion should be tried first; then intimidation, threats, reprimands or rewards; we should reason with them, using at the same time hygienic therapeutics—that is, to say, physical exercises of all kinds. We should endeavor to turn the vicious direction of their imagination by inculcating an artistic taste. We should calm the nervous excitability of their genital apparatus by special drugs that are always excellent adjuvants to any method of treatment, and which occasionally bring about a cure when the vice is not too deeply seated or is caused by an irritative trouble of the innervation.

Drugs are still useful and often efficacious in adults whom an idiosyncrasy or a bad heredity lead in pursuit of pleasure, as well as in those whom continence or forced abstinence torture, and also in those whose desires are not calmed by marriage.

Advice is of more use to women than to children. The physician, gently or roughly, as the case may require, should endeavor to persuade his patient. Calling to his assistance everything that will affect or frighten her, he will describe the horrors of a precocious old age to one; to another he will depict the physical and intellectual decrepitude toward which she is hastening; to all without exception he will complacently enumerate the long list of diseases both of the body and of the mind that will inevitably attack

them, putting especial weight upon the terrible train of symptoms leading to insanity.

To the married woman he must predict sterility and abortion for herself, and for her children, should she chance to bear any, deformities, rickets, scrofula, neurasthenia, idiocy and tuberculosis, even in their cradle.

In young patients, as well as in older ones, in spite of their good intention to get well, moral therapeutic and hygienic treatment may fail. In these cases we must have immediate recourse to repression; if the patient be a child, to corporal chastisement—too often useless, alas!—and to surgical procedures, which are often of great use in those grown persons whose will powers is too feeble to resist the temptation of the vice. Metallic gloves, the straight-jacket and especially the “ceinture contentive” should be employed for a suitable length of time.

Next, repeated cauterization of the vulvar mucous surfaces is in order. After this, if success is wanting, we should decide upon ablation of the clitoris or clitoridectomy, an operation that has succeeded more often than it has failed. It is almost exceptional that the physician, with all these different methods at his command, and patiently employed, can not finally succeed in eradicating onanism.

As to those husbands and lovers, so numerous nowadays, whom depravity or a reprehensible deference to their consorts' wishes induce to awaken by unnatural means the voluptuous spasm in their companions, the physician should tell them categorically that they are endangering the health and lives of their bed-fellows.

This will suffice to stop them if they have not fallen into utter abjection and become cowardly and ignoble brutes.

(The End.)

THERAPEUTICS OF ARISTOL.

BY G. C. M. MEIER, M. D., NEW YORK.

Aristol is one of those remedies that give one more satisfaction the longer it is used. For about four years I have employed it in all kinds of wounds and ulcers, and have never been disappointed in its cleansing and healing effects on the sore. It undoubtedly takes the place of iodoform in every case, being exempt from the disagreeable odor of the latter, and also from the slightly toxic effects that must always be taken in consideration when using the latter product on any very extensive surfaces.

Aristol may be used in different combinations, either in the powder form, as an ointment or dissolved in collodion. Mixed with equal parts of boric acid, it makes a very desirable powder for insufflation into the nasal passages, especially where an odor is to be subdued, inherent in the discharge of from crusts formed on ulcerated surfaces, as in ozena. Otorrheal discharges yield even more readily to this combination of aristol powder than to boric acid insufflation alone; the odor is at once overcome and healing of any ulcerations and abrasions rapidly takes place.

The same powder can also be beneficially used on discharging ulcers, where it will have a tendency to arrest the formation of pus, and the sore will in a few days become dry and clean and take on healthy granulations. Particularly in ulcers of the leg great benefit is derived by dusting on the pure aristol and then bandaging or strapping the ulcer.

An excellent dressing is obtained by dissolving aristol in collodion, 20 grains to the ounce, and painting it over any clean-cut surface which has been sutured. Usually I employ horse-hair sutures which have been previously steeped in a carbolic acid solution. This dressing does away with any bandaging, and where the wound has been first made aseptic and the surfaces have been brought well in apposition by careful suturing the dressing can remain on permanently until the sutures are to be removed, no inflammation or sup-

puration whatever taking place. A very slight smarting, due to the evaporation of the ether while the collodion becomes firm, is the only drawback to this method; but this passes over so rapidly that it need not be taken into consideration as any objection whatever.

In erysipelas the application of a solution of aristol in collodion will be found an ideal dressing. Besides the pressure which has already been found useful, which is exerted by the collodion itself, the aristol exerts its own influence on the micrococci or erysipelas. Of course, flexible collodion should not be used in the preparation of this dressing. In chancroids I have obtained the best results by powdering on the pure aristol twice or three times a day after first cauterizing the lesion with sulphate of copper, which is immeasurably superior to the old nitrate of silver stick treatment. The copper is an excellent stimulant to healthy granulations, and the pain it produces does not last any longer and is not as severe as the application of the nitrate. In hard chancres it may be applied mixed in equal proportions with calomel, dusted on the sore three or four times a day, and will give gratifying results.

In burns and scalds of any degree, after preliminary treatment with the most excellent carron oil (linseed oil and lime water in equal parts), there is no remedy superior to aristol in the form of an ointment, one drachm to the ounce simple ointment. I never use vaseline or any mineral fats as the basis of an ointment; they are disappointing and often irritate the wound, which latter effect may likely be attributed to the aristol incorporated with it when it is wholly due to the base of the ointment. Aristol never produces irritation, but I think it is better to allay the congestion and heat of skin in a burn by previously treating it with an alkaline solution or an alkaline oil, viz., carron oil. The dressing with the aristol ointment should be covered with cotton batting and a

bandage snugly applied; the wound remains dry and heals beautifully, without odor or discharge, if the dressing be left in place for two or three days before changing; and, what is most astonishing, the scars so often left on the healing of burns are much less prominent and tend less to contraction and producing deformity than with any other method I have employed. In bed sores, after thorough cleansing the latter with a solution of carbolic acid or corrosive sublimate or even with boiled (sterilized) water, the effect of an aristol ointment will be surprising; the indolent sore takes on healthy, florid granulations, and the healing process rapidly progresses, if at the same time the pressure of the bed be removed from the ulcer by an inflated ring or a nest of oakum.

It is always to be remembered, however, that aristol does not act more beneficially than any other remedy where there are other causes to prevent the healing of a wound. Always put the diseased part in as good a position as possible for nature to exert her recuperative powers, and then, indeed, aristol can be said to act magically. Besides, how often does a patient absolutely refuse to use the ointment or powder whose odor he has learned to know from a friend, perhaps, who was suffering with some venereal disease. The idea uppermost in the mind of the laity

when they detect the odor of iodoform is one reverting to its principal use at the time of its first introduction, and they invariably connect the possessor of it with some form of venereal disorder. Besides this humiliating suspicion, the introduction of such a penetrating, and, to most people, disgusting odor into a family entails a vast amount of discomfort on its members. The atmosphere of the whole house, the dinner, clothing and everything else is flavored with that sickly scent and social intercourse with outside friends is often absolutely interdicted. In abdominal surgery Dr. R. Morris has proved, by experiments on rabbits, that aristol was invaluable in preventing adhesions of the intestines after the removal of morbid growths; by dusting it thickly on the raw surfaces these become so well protected and isolated that adhesions cannot occur, and repair goes on under this covering in a perfectly aseptic manner. The absolute safety of its absorption allows its profuse application without any misgiving.

In endometritis, after thorough cauterization of the diseased membrane or curetting, the value of aristol in powder by insufflation is especially to be recommended. No deleterious effects from absorption need be feared and perfect asepsis is assured. Its value in ulcerations of the os and lacerations of the vaginal wall is self-evident after what has been stated above.



Editorial

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ANOTHER RAY DISCOVERY OF IMPORTANCE TO THE MEDICAL PROFESSION.

It has been announced that Mr. Edison has made a new discovery in relationship to the Roentgen ray, whereby he does away with the photographic plates and enables the solid parts of the body to be examined directly by the naked eye and their internal arrangement exposed to view. Moreover, he intends to produce an apparatus that will be inexpensive and applicable to the private practice of physicians, hospitals and dispensaries.

The apparatus consists of a double tube vacuum pump attached to a wooden upright, the exhaust mercury pipe running into a small wooden box alongside the pump in which the tube is placed. The electrical current is furnished from an ordinary battery and induction coil under the box, or any other convenient place, and the wires lead through the bottom of the box, obviating any possibility of surgeon or patient receiving a shock.

When a patient arrives at the hos-

pital the surgeon will turn on the current and place the limb or portion of the body to be examined across the top of the box containing the tube, and fasten over his eyes the new theoscope, a large field glass without lenses, the outer end being covered with paper coated with calcium crystals. The cover of the box offers no material resistance to the passage of the rays, and the surgeon is able to examine the injured limb at leisure.

If this proves all that is desirable there will shortly be a revolution in medicine and surgery. Our suppositions and theories will melt away in the presence of visible facts. We will not only be enabled to see the human machinery "in motion," but to determine its relief in the event of break-downs. It would not be without reason to hope that we even might attach a microscope to the apparatus and observe the action of bacteria and blood corpuscles within the living organism.

AMENORRHEA AS AN AUTO-INTOXICANT.

Charrin (*Medecine Mod.*, January 11, 1896) is inclined to the old view that chlorosis is the result, not the cause, of amenorrhea; he terms it a menstrual auto-intoxication. Immediately before the period the toxicity of the serum is at a maximum. Wet nurses who menstruate during lactation are apt during the days preceding the show of blood to cause their sucklings to suffer from diarrhea and cutaneous eruptions. Such wo-

men themselves often have herpes and fever. When the "show" appears health is restored, and the infants again thrive. Charrin finds that menstruation is a true excretory process, a purging of waste products. In sickly young girls the ill-development of the histological elements of the genital tract prevents this elimination. Waste products accumulate, and the phenomena of chlorosis develop.

MORE SCIENCE.

Nicola Tesla, the young electrician of marvelous resources, says he is working on a scheme for instant communication between all points of the world by means of simultaneous electrical processes, using the electrical waves known to exist in the atmosphere. This may not strike the average reader as surpassing modern conception of the possibilities of electricity as a means of communication, but when the daring discoverer declares that by the same

means it may be possible to communicate with some of the near-by planets interest grows to the point of incredulity. If it be even remotely possible to pierce the mystery of the silent universe which lies around us and to demonstrate what so many now believe that this whirling ball on which we live and move is but one, and mayhap an insignificant one, of many inhabited spheres, then, indeed, do we stand upon the threshold of a new life.

INSOMNIA IN CHILDREN.

In the selection of a hypnotic for the various conditions of sleeplessness in children, much difficulty has hitherto been experienced, since the remedies at the disposal of the physician were known in some instances to give rise to dangerous and even lethal effects. As it was impossible to foresee in what cases these unpleasant sequelae might ensue from the exhibition of any given hypnotic, the physician has often been led to abstain from their use in patients who might have greatly benefited from the administration of a suitable agent of this kind. Of the numerous attempts made to find a drug which would produce normal sleep, both

safely and promptly, one deserves especial attention since it resulted in the discovery of a substance named Trional, which in many respects deserves the title of an ideal hypnotic both for adults and children. Among the most recent authors who have made this drug the subject of a careful clinical study, is Dr. Pasqual de Gennaro (*La Pediatria*, Nos. 10 and 11, 1895), who regards Trional as an extremely valuable hypnotic in pediatric practice which exerts no influence upon temperature, respiration, pulse or digestion. After-effects were only seldom observed, even when it was employed for a long time, and then disappeared as soon

as the remedy was discontinued for a day. Its effect was usually manifested within a period of fifteen to thirty minutes, and in no instance did the patients become habituated to its use; in fact, after its continuous administration for fourteen days its action remained the same. The dose ranged according to age, from 0.1 to 1.0 gm.; in a ten-year-old girl sleep was produced by smaller doses than 1.0 gm. Its duration varied between one and four hours, and seemed to be in direct relationship to the

dose administered. The sensibility and reflexes remained uninfluenced while the nutrition was not affected. In conclusion, the author discusses the question, which of the three hypnotics—chloralose, urethane or Trional—is best adapted for pediatric practice. In view of the inconstant action of urethane and the possibility of unfavorable after-effects with chloralose, he expresses a preference for Trional on account of the rapidity and reliability of its effect, its ease of administration and perfect innocuousness.

OUR STUDENT DAYS.

BY LOUIS LEWIS, M. D., PHILADELPHIA.

Our student days! Our student days!

What joy their remembrance begets;

How our spirits would raise at the teacher's praise;

How his anger aroused our regrets.

How hard we would hustle, with nerve, vein and muscle,

As our scalpels their course displays;

And the leave of our memories mournfully rustle,

As we think of our student days.

Our student days! Our student days!

What tedious times were they;

As hour after hour we painfully gaze

At "Pepper" and "Leidy" and "Gray."

How leaf after leaf did but add to our grief,

As we groped our way out of the maze,

And we pondered o'er "Dunglison," seeking relief,

In those terrible student days.

Our student days! Our student days!

They will never come back any more;

Those laughs at the lecturer's comical ways,

And the group at the hospital door;

And our wearisome groans as we studied the bones,

And the part that the blood-current plays;

How the names of the muscles awakened our moans,

In those wonderful student days.



Book Reviews.

DIAGNOSIS AND TREATMENT OF DISEASES OF THE RECTUM, ANUS, AND CONTIGUOUS TEXTURES. Designed for Practitioners and Students. By S. G. Gant, M. D., Professor of Diseases of the Rectum and Anus, University and Woman's Medical Colleges, Kansas City, Mo. With two chapters on "Cancer" and "Colotomy" by Herbert William Allingham, F. R. C. S. England. One Volume, Royal Octavo, 400 pages. Illustrated with 16 Full-Page Chromo-Lithographic Plates and 115 Wood-Engravings in the Text. Extra Cloth, \$3.50 net; Half-Russia, Gilt Top, \$4.50 net. The F. A. Davis Co., Publishers, 1914 Cherry Street, Philadelphia.

This is one of the most complete books of its kind we have seen for the general practitioner. Every subject is so classified that the physician can find what he wants without trouble. The illustrations are excellent, original, mostly from photographs, and clearly representative. It contains everything up-to-date on the subject, and the press work and lithographic plates are exceptionally good. It contains two important chapters on the effects of railroading as a cause for rectal troubles, and auto infection of the intestinal canal. Every practitioner should have a copy.

CONSUMPTION: ITS NATURE, CAUSES AND PREVENTION. By Edward Playter, M. D. William Briggs, Publisher, Toronto, Canada.

This is a work on this subject which it is refreshing to read, inasmuch as it has been written with an evident desire to do the most good from an unbiased mind. While the

book is written with an intention of distribution among the public generally, the general practitioner will also find in it many things worthy of his notice.

Dr. Playter has followed along the same train of thought in his treatment of the subject that I did a year and a half ago, in a similar brochure on consumption, but Dr. Playter has gone into the subject with greater detail. He lays due responsibility for the ravages of consumption to the bacillus, but denies that it is or may be the sole cause. This fact cannot be accepted at the present time, because of that recognized condition, the pre-tubercular state, which exists in persons in whom tuberculosis is subsequently developed, but who at the time of examination do not give evidence of tubercle bacilli.

That perfect elimination is the essential feature in the animal economy, which leads to a prevention of phthisis is also an established fact, and this, coupled with perfect respiration will perform wonders towards the cure of the affection.

Dr. Playter rightly states that there is not, nor will there be, any specific remedy for pulmonary tuberculosis. A strengthening of the blood cells to perfect elimination by establishing perfect oxidation will come the nearest to specific medication.

F. S. P.

NEW YORK COUNTY MEDICAL ASSOCIATION REGISTER OF MEMBERS. 1895.

This is a valuable directory of both members and non-members of this Association, who are regular practitioners of the County of New York, together with notes and comments of the last meeting of the Association.



THE DEVELOPMENT OF THE ROENTGEN RAY AND ITS RELATION TO MEDICINE.

Our former article on Prof. Roentgen's remarkable discovery, which appeared in the Times and Register, was written before any notice had been given the subject by any medical publication. Even at a much later date many of our leading medical and surgical journals expressed the view that the clinical value of the discovery would probably be small. It is now worth while to state that the forecast of its value made in our electro-therapeutic department by the author is being rapidly fulfilled by the quick progress of developments. As our remarks were written within an hour after reading the first brief cablegram, which reached this country on January 7, and before any other expression of opinion had appeared in print, even in the daily newspapers, it is gratifying to witness the confirmation of what may have been regarded by readers as exceedingly visionary.

Unless one follows the subject through files of scientific and technical journals, both of this country and European capitals, the full magnitude of Roentgen's work cannot be comprehended. The relation of radiography to surgical diagnosis and forensic medicine, already demonstrated in many reported cases, bids fair to be the least of its results. While various experimenters are seeking to reflect and concentrate the rays and secure upon the sensitive plate not only a shadow outline, but a true photographic image, Mr. Edison is perfecting a portable fluoroscope to reveal to the eye at once all that the slow process of plate development and printing make clear after tedious delay. It may perform the work of the well-known stereoscope with the differ-

ence that its fluorescing screen of tungstate of calcium crystals makes the human body transparent for visual examination. It is already a partial success, though great improvement awaits it in specific detail. But so rapidly is modern scientific genius solving the problems of converting this "new mode of motion" into an obedient force that greater advances have already been made in three months than were made in photographic methods for fifty years after the beginning of Daguerre. But this is not all. When a man of Mr. Edison's achievements and practical knowledge affirms that Roentgen's revelation is destined to be the discovery of the century, and proceeds to devote all the resources of his laboratory, his personal energy and large sums of money to demonstrating the basis of his belief, the majority of on-lookers and the medical profession who simply watch and wait may wisely refrain from saying that useful results are impossible.

Certain therapeutic action of the new rays seems to be clearly indicated. In experimenting upon the cranium Mr. Tesla observed the following: "By exposing the head to a powerful radiation, strange effects have been noted. For instance, I find that there is a tendency to sleep and the time seems to pass away quickly. There is a general soothing effect, and I have felt a sensation of warmth in the upper part of the head. An assistant independently confirmed the tendency to sleep and the quick lapse of time. I still more firmly believe that we have here material streams penetrating the skull."

In the issue of the Times and Register at hand as these lines are written, Dr. E. C. Mann remarks:

"Finally, I deem it of the greatest importance to thoroughly investigate the wonderful Roentgen's cathode rays of electricity, as I believe, from the experiments I have already made, but which I do not desire to make public until my results can be considered by scientists as something more than provisional, that we have in the Roentgen ray the potentiality of the destruction of disease germs on a scale that will be applicable to state, or preventive medicine as well as to curative medicines or the cure of disease."

Another author says: "It is fair to presume that the rays have a subtler power than simply this one of penetration. Ordinary light is one of the main factors in the health and development of animal life. Sunlight is essential to animal and vegetable tissues. It is one of the most potent of chemical forces and a great therapeutic agent. The whole subject of these new light rays is astir with life. What effect may they have on pathological conditions?"

Those who hope to find them possessed of a distinct germicidal power will, I think, be disappointed. Eight varieties of bacteria were subjected to experiments by one pathologist with the apparent result of observing no lethal or inhibitory effects. It is not necessary for them to produce direct lethal effects in order to become a valuable agent in curative medicine. If they "promote a sound state of the tissues," nature will take care of the micrococcus. It is my own opinion, however, that we already have in certain applications of powerful static electricity, particularly the breeze, a parallel influence for the successful treatment of diseased states. Maxwell gave us the electromagnetic theory of light. It is not improbable that the benefits of sun-rays could be intensified by splitting them up as we do electric currents, and giving them a high potential and oscillatory character. These characteristics are possibly possessed by the Roentgen rays as they are generated in the high vacuum tube by the high tension current of electricity.





Correspondence.

WAYSIDE NOTES.

Ernest B. Sangree, A. M., M. D.

For years I have been waiting for some person of leisure and observation to write a book on nineteenth century superstitions. What an interesting side light a work of that kind would throw on the psychical and intellectual condition of the great mass of people of our time. These superstitions affect all classes of men, in all walks of life. In the country the farmer thoughtfully consults his almanac before going to work, and plants his onions and hoes his corn and mows his hay only in the appropriate sign of the moon; while his city cousin carries about in his pocket a horsechestnut, the left fore paw of a rabbit or some other knick-knack for good luck.

A large chapter in the book could be devoted to medical superstitions and strange practices. The prevailing opinion with the common people is that the worse a remedy smells, tastes or hurts the more efficacious it is. Hence stinking onion poultices are considered very valuable for the reduction of fever, especially when miniature ones are applied to the wrists. Coal oil that peels off the child's epidermis is of remarkable utility in sore throats, and nauseating teas by the quart are valuable for the purpose of eradicating impurities from the blood. Wire bracelets around the wrists are said to be

excellent remedies to ward off fits, and a basin of water under the bed is considered by many a first-class febrifuge. An infallible cure for snake bite is to kill a chicken, instantly to cut it in two and apply one half of the fowl to the wound, where, according to the current fairy tale, it will stick until the flesh has absorbed all the poison, turning green, of course, in the process, whereupon it will very sensibly drop off, resembling in this intelligence the equally remarkable madstone. A poultice of cow dung will heal a bruised foot quicker than any of your new-fangled applications; and, horrible dictu, a very decent, well-to-do sort of woman came to me lately with a post-nasal catarrh that must be of exceptionably obstinate nature, because it had resisted an almost infallible remedy, namely, the snuffing up of one's own chamber lye.

"What makes you so nervous?" I asked the colored dispensary man. "I used to run on a steamboat," he replied, "and killed chickens." "Why, what on earth has killing chickens to do with being nervous?" I inquired. "Well, you know, if you kill a chicken and hold it while it dies you will be nervous after that."



Current Medical Literature.

THE IDENTITY OF DIPHTHERIA IN MAN AND THE LOWER ANIMALS.

(Bulletin de l'Academie Royal de Medicine de Belgique).—In an interesting and exhaustive work upon this subject, Leon Gallez, of Chatelet, states that the bacteriological proof of the non-identity of the diphtheric organisms found in man and the lower animals, such as the pigeon, chicken, calf, rabbit, cat, dog, horse and pig, is not conclusive. On the other hand, the numerous observations of the transmission of the disease from man to the lower animal, nine cases being cited from the literature upon this subject, and vice versa, seventy-two observations, are considered by Gallez to be almost positive proof of the identity of the different organisms which have been described in connection with diphtheria in man and the lower animals. Four histories are also given, in which the transmission of human diphtheria to an animal has been in return followed by its re-communication to man. While the morphology is different, it is not more so than can be explained by the variations of the Klebs-Löffler bacillus as seen upon different culture media; likewise, the symptomatology differs on account of the various anatomical peculiarities of the different species of animals in which the disease occurs. The author considers that we have in animals both an accidental form and an habitual one, the latter being merely a repetition of the culture of successive generations in the individual of the same species, the organism finally taking on special characteristics.

—International Medical Journal.

OXYCYANIDE OF MERCURY AS AN ANTISEPTIC.

C. Monod and Magaigne (Progres Med., October 26th) state that oxycyanide of mercury in 5 per 1,000

solution displays in laboratory experiments an antiseptic potency always equal to, and often greater than, that of 1 in 1,000 sublimate solution. It has no disadvantages other than those possessed by corrosive sublimate, and it has the special advantage of not affecting either the hands or the instruments of the surgeon. It may therefore replace sublimate in surgical practice. This conclusion is based on an experience of the use of the oxycyanide in hospital and in private practice of more than four years, and on laboratory experiments in which the power of the oxycyanide to prevent the growth of cultures, to kill a developed culture, and to sterilized contaminated substances has been tested and compared with that of sublimate. The experiments were made not on pure cultures of streptococci and staphylococci destitute of spores, but on dust from hospital wards containing bacillus pyocyaneus, bacterium coli, streptococci, and especially a bacillus resembling that of anthrax, with spores which resist a temperature of 100 degrees C. No serious toxic effect was ever observed. The authors, however, recommend that the oxycyanide should not be used for washing out cavities, especially where there is any danger of any of the fluid being left behind. Monod and Magaigne mention that oxycyanide of mercury was first recommended as an antiseptic by Chibret.

—British Medical Journal.

OPHTHALMIC TROUBLES IN BICYCLISTS.

In the December number of the Medical Chronicle there is an abstract of an article on this subject by M. de Lavigerie, published in the Recueil d'ophthalmologie, No. 4, 1895, in which the following case is related:

Mr. B., a professional cyclist, was

engaged on the 2d of February in a twenty-four-hours' track race at the Velodrome d'hiver, at five o'clock in the afternoon of an intensely cold day. He mounted his machine "feeling perfectly fit and in the best form." During the night the thermometer fell to 10 or 12 degrees in still air. Mr. B., however, had the services of relays of pacemakers on tandems, who, traveling at high speed in front of him, made a vacuum in the air behind them, producing a rapid current of air so strong as to carry around the track in the wake of the machine pieces of crumpled paper and other light articles. Under these conditions, then, and worked up to a high state of nervous tension in his attempt to break the record, the patient passed the night. After three-quarters of an hour's racing he began to complain of seeing colored halos round the electric lights; disregarding this, he still kept on, though his vision gradually became more indistinct. By the morning his acuteness of vision was so much affected that he could hardly tell whether the incandescent lamps were burning or not, and by half-past ten o'clock he was observed to steer wildly and come in collision with persons on the track. On inquiry, he announced that he was quite blind, and was immediately made to dismount, having ridden for eighteen hours and covered the distance of five hundred and thirty-six kilometres. On an examination of his eyes the lashes and conjunctival culs-de-sac were found covered with dust. There was very little circumcorneal injection, but both cornea were hazy and infiltrated, the zone of infiltration corresponding to the palpebral opening, and having a fan-shaped expansion downward. There was no exfoliation of the epithelium, but the infiltration appeared to be situated deep in the cornea. The peripheral visual field and color perception were normal, but direct vision was reduced to distinguishing fingers at twelve feet. A warm boric-acid lotion to the eyes and quiet rest in bed for several hours, as he was suffering greatly from cold and fatigue,

promptly improved his condition, and in forty-eight hours his cornea had become transparent once more, and vision had become fully restored. The interesting features in this case, says the writer, are the development of symmetrical tropical lesions on both cornea in a probably over-trained, neurotic individual subjected to intense muscular fatigue in the presence of a very low temperature, and the rapid recovery from the corneal opacity, which may be said to have lasted only a few hours before it began to clear up.

KNAPP, H. (New York).—On the indications for Mastoid Operations in Acute Purulent Otitis Media, with Four Illustrative Cases. "Arch. of Otol.," Vol. XXIV., Nos. 3 and 4.

With cold applications, rest in bed, antiseptic cleansing of the ear, and early paracentesis, urgent symptoms may pass away even when the attic is affected. In the first case this was noticed. In the second and third operation was required. The fourth (influenzal) ended fatally from a relapse, rapid improvement having followed paracentesis. The patient was removed from the writer's further care, and the family practitioner was misled by a history suggesting a tendency to "cerebral attacks." He concludes that no one symptom by itself constitutes a sufficient indication for a mastoid operation—even choked disc—but only the ensemble of the symptoms and the course of the disease. He insists that, even if the patient recovers and does well (without operation), he should be kept under observation for weeks and months; and that, whatever the symptoms be, our operative procedure should commence with the opening of the antrum, the remaining interference depending on the conditions coming into view. He quotes Bezold's statistics showing that "about nine per cent. of all cases of acute middle ear suppuration are complicated with such a degree of mastoid inflammation as to make a spontaneous recovery improbable."

—Dundas Grant.

MOULIN, MANSELL (London).—Three Cases Illustrating the More Severe Complications of Middle-Ear Disease. "Lancet," Nov. 23, 1895.

Three cases illustrating the results that follow neglected otitis media. In the first case there was acute inflammation of the temporal muscle and of the squamous portion of the temporal bone; the cerebral symptoms were suggestive of intracranial suppuration, but were relieved on incising the pericranium and trephining the bone. In the second case there were marked pyemic symptoms, with paralysis of the external rectus of the opposite eye; the sinus was opened and found full of clot, which was washed out, and the case did well. The third case was one of sinus thrombosis following long-standing otitis media; the mastoid antrum and cells were cleared out and the sinus laid bare, but the man died of pleurisy and pericarditis eight days after admission.

St. George Reid.

BRONNER, ADOLPH (Bradford).—On the Various Methods of Operating on the Mastoid Process and the Indications for the same. "Lancet," Nov. 9, 1895.

The author first deals with the dangers of unskilled surgery in this region, and then enumerates the symptoms indicating that an operation is necessary. He refers to the various authorities on the subject, their modes of operating, and the varieties of operation; and concludes by pointing out—firstly, that we should not operate unless acquainted with the anatomy and pathology of the part, and unless we have operated frequently on the dead body; secondly, that cases of persistent chronic otitis media should be carefully examined, and, if necessary, operated on; thirdly, that the use of the gouge or gimlet in operating is dangerous and incomplete; and, lastly, that we should not stitch up the wound, but leave a large opening.

St. George Reid.

BROWN, W. H., (Leeds).—Notes on two Cases of Enucleation of Thyroid Cyst. "Lancet," Sept. 21, 1895.

Two cases of thyroid cyst occurring in young unmarried women. The cyst was first opened and emptied of its liquid contents by means of a free incision over the tumor, and the cyst wall was then stripped off by means of the finger and a blunt director. Both cases did remarkably well without any important rise in temperature. The author also mentions a case of enucleation of an adenoma of the thyroid gland in a girl of fifteen, where the tumor was without any difficulty detached from its surroundings, the patient making a satisfactory recovery. In operating on these cases he is in favor of a free incision over the tumor, in order to obtain a better view of the wound cavity.

—St. George Reid.

BURIAL OF LIVING PERSONS.

Luckily, live burials are of exceedingly rare occurrence, but that is no reason for neglecting to ascertain every test that may be of vital importance in ascertaining whether life be present or not. Dr. J. Milford Barnett has, in the *British Medical Journal*, a very sensible and practical suggestion to make. He suggests, in uncertain cases, the application to the back of the forearm of a small stream of boiling water from the spout of a kettle. If life is present, a blister will soon and unfailingly form where the boiling water was applied, and the blister will contain serum. The production of the serum blister being an essentially vital process, its presence or absence will be an infallible test, and would at once determine the question. Dr. Barnett is to be thanked for adding one more really good test to the list.

—London Medical Times.

THE RELICS OF EVOLUTION.

It is interesting to review the relics left by evolution in the human anatomy, and to see how completely they carry its evidence forward from generation to generation. Dr. Lewis Robinson has from time to time pointed out some of these interest-

ing vestiges in his articles in the Nineteenth Century. One vestige, known to most people, is the coccyx, which presents an example, perhaps, of a reversion to the older type; embryologists are familiar with the caudal projection of the human fetus and the dimple over its site in the newly-born baby, while anatomists often see in the dissecting room well-marked evidences of the tail muscles inserted into the coccyx. The coccygeal gland, too, is but the relic of the caudal arteries. Another relic of evolution is the plica-semilunaris, which represents the nictitating membrane of birds. Then there is the remnant of the pointed ear, now known as "Darwin's tubercle," more marked in some auricles than in others. Such muscles as the occipito-frontalis, platysma myoides, the muscles of the facial expression, the palmaris brevis, corrugator cutis ani, and those which once were used to move the ear, are all remnants of muscles well developed in a former type. Then we have the supracondyloid foramen in the humerus sometimes present in a man; that very troublesome vestige, the vermiform appendix, the location and direction of the hair on the trunk and limbs, the dwindling wisdom teeth, the long canine teeth, the inwardly-inclined foot of the fetus, with its widely-separated big toe set at an angle to the others, the remarkable grasping power of the baby's hands, besides a host of habits, such as sucking the fingers during perplexity, the crawling on all fours, and other peculiarities, which have been pointed out as reversions to a former type. The list is great, and sceptics might do worse than consider them.

—London Medical Times.

NERVOUS ERUCTATION.

Eructations of gas from the stomach sometimes occur from hysteria, more rarely from neurasthenia and from genital neurosis.

—Medical Age.

GLYCERIN IN RENAL STONE.

Glycerine will dissolve uric acid freely, and is thus valuable whenever

there is renal stone. The first effect of its ingestion is to increase the thirst; then pain in the region of the kidneys, limited to the side affected. The quantity of urine is increased, and after from ten to twenty-four hours small calculi are expelled. The pains are not as severe as those of renal colic, while the urine, after the ingestion of the glycerin, contains neither albumen, sugar, nor hemoglobin. After three or four hours the presence of glycerin in appreciable quantities can be discovered in the urine; also a large quantity of mucus. Based upon these results, glycerin must be regarded as the most efficient means of treating renal lithiasis.

—Medicine Moderne.

CLEANLINESS DURING MENSTRUATION.

Most women develop a veritable hydrophobia at this time, and feel a security in shameful filth. I should like to record myself as in favor of plenty of boiled water both as a douche with a proper nozzle, and as a bath locally at these periods. If there is one time above all others when we should maintain perfect cleanliness, it is this one. The vagina full of blood and debris, the endometrium open and absorptive and an abundance of organisms present, offers a most perfect factor in setting on foot and keeping up those conditions which, too often, the text books record as pending at the menopause.

—T. C. Witherspoon, M. D., in the Medical Fortnightly.

As a rule, Dr. Cantrell prefers lactic acid over other caustics to be used about the face, because its action is so easily checked by dusting powdered starch over the part operated upon.

—Philadelphia Polyclinic.

Dr. Carpenter has found the tincture of gelsemium, in ten (10) drop doses every three to four hours, of value in backache, often relieving the pain after some of the more popular remedies have failed.

—Philadelphia Polyclinic.

German and Italian

Translated by DR. F. E. CHANDLER.

THE TREATMENT OF EMPYEMA BY THE METHODICAL SUBSTITUTION OF AN INNOCUOUS LIQUID FOR THE PLEURITIC EXUDATE.*

BY PROF. S. LEWACHEW.

Director of the Medical Clinic in the
Medical School of Kazan.

Some ten years ago I noticed severe accidents repeatedly following thoracentesis performed upon three patients in order to diminish the sero-fibrinous exudations.

Withdrawal of relatively small quantities of the exudate, even when urgently called for, was followed by acute pain in the thorax, aggravation of the general condition, rapid reproduction of the exudate, etc. These mishaps, well known to physicians, were of mechanical origin and caused by a diminution of the intra-thoracic pressure.

In order to prevent a whole series of accidents that may result from a congestion "ex vacuo" and from a rapid depletion of the chest, and which may go on to intra-pleural hemorrhages even, or to rupture of the lung, it has been recommended that paracentesis be performed with a fine needle and not more than 1000 or 1500 grammes of liquid be removed at a single operation.

These precautions even are far from preventing the bad results of thoracentesis. For that reason, and struck by the unfavorable issue of the operation when performed either by myself or others, I then proposed to seek some modification of thoracentesis that would give better results.

Preliminary experiments upon animals showed me that the safest method of procedure consisted in replacing gradually the pleuritic exu-

date by an innocuous liquid—a solution (.06-.07 per cent.) of sodium chloride.

After withdrawal of a small portion of the exudate the same quantity of Na-Cl solution is introduced into the pleural cavity. By repeating this operation several times we may easily succeed in replacing the entire exudate by our saline solution. The injected liquid disappears by re-absorption as fast as the lung dilates and we need not fear the consequences of a sudden diminution of the intra-thoracic pressure.

Experiments upon animals have given other results that show an additional precious advantage of this method of procedure—the liquid injected into the pleural cavity has a specific action upon the inflammatory processes and may lessen them more or less, according to the case.

The results of my experiments upon animals decided me to try and see if the same results would follow when applied to human pathology.

I tried my method of procedure for three years and on 24 patients. The results were invariably most favorable. The patients stood the operation perfectly. They not only did not complain of any pain, but they felt during the thoracentesis a well-marked euphoria, so much so that some of them, hoping to be cured more promptly, asked that the operation be repeated as soon as possible.

In the great majority of cases, after two, three or four days (rarely more), the exudate diminished more or less rapidly, the organs returned to their normal position, the severe

* Translated from the Russian Archives of Pathology, Clinical Medicine and Bacteriology, by F. E. Chandler.

respiratory and circulatory disturbances disappeared, the fever ceased and the patients were cured. Very old pleuritic exudations that had resisted all other methods of treatment were promptly cured by this method.

I communicated the facts collected from my 24 cases to the International Medical Congress, of Berlin, August, 1890.

After my communication several other clinicians tried my method.

Professor Maragliano in the medical clinic of Genoa treated eight patients, and Dr. Jalowoy treated two patients at Professor Obolensky's clinic at Kharkow. Their results coincided exactly with my own observations. Since 1890 I have been able to continue my observations and have collected 18 additional cases that were treated in the same way and gave analogous results.

It results, then, from all these observations, sufficiently numerous today, that thoracentesis followed by the substitution of an innocuous liquid for the exudate, is the best method of curing a pleuritic effusion. There is no other method that fulfills so surely every indication of the rational treatment of pleurisy—namely, to evacuate completely the exudate, prevent any considerable lowering of the intra-thoracic pressure and the rapid depletion of the pleural cavity, and, finally, to diminish or possibly abolish the inflammatory processes of the pleura.

I am persuaded by the data I have collected that if a conscientious physician, unbiased on this subject, will carefully study these facts and put them into practice he will come to the same conclusion that I arrived at five years ago, and of which the confirmatory results multiply daily.

The researches that I have just described were at first intended to effect a cure of non-purulent pleurisy only, but lately I have had under observation some cases of empyema that were both very severe and of long standing, in which we could not have recourse to incision of the thorax because of the absolute resistance of the patients and their friends. In

these cases I was then obliged to be satisfied with the substitution of a saline solution for the purulent exudate.

When this method was used regularly a progressive amelioration set in and soon brought about a cure. We shall quote a case, remarkable both on account of the extreme gravity of the patient's general health and for the rapidity of the cure:

A man 45 years of age was taken with pleurisy of the right side in November, 1893. The fever lasted the entire winter and spring, and the patient grew steadily more and more cachectic. In April, 1894, I found him in a pitiable condition.

The right side is distended by an enormous pleuritic effusion. Ascites, complete anasarca, considerable albuminaria. The lower extremities enormously swollen; complete anorexia, high fever (38.5-40 degrees); extreme adynamia. The patient and his friends will not hear of any surgical operation. On April 28 first thoracentesis, which evacuated 4000 c. cm. of greenish pus and was followed by very imperfect substitution, because of the extreme debility of the patient; this operation, nevertheless, was followed by a slight amelioration. On May 3, second thoracentesis, this time with complete substitution. Amelioration very marked; fever decreases, the right side commences to sink, the respiratory murmur is almost normal, as high as 10 cm. above the angle of the scapula, the heart returns to its normal situation, the appetite reappears. On May 15, third puncture, by which only 120 c. cm. of pus are removed and after four successive evacuations and injections into the pleural cavity, the saline solution comes out clear.

From this time on the patient improved rapidly and his cure was a permanent one; the thoracic deformity diminishes, the dilated lung occupies the entire right thoracic cavity, the respiratory murmur is heard almost everywhere and the heart beats under the left nipple. The patient has reported for examination several times. At last accounts (23 months after his pleurisy) there were no signs of any relapse.

Drs. Loukomsky, of Omsk, and Avdycowitsch, of Toula, have published two observations of the same kind.

These facts prove the great value of thoracentesis with substitution in the treatment of purulent pleurisy and demonstrate the fact that quite a number of empyemas may be cured in this way.

My observations show that, to obtain a cure of empyema, it is neces-

sary to evacuate as thoroughly as possible the pleuritic exudate while carefully avoiding any lowering of the intra-thoracic pressure and irritation of the inflamed pleura by so-called antiseptic fluids.

The most eminent surgeons are coming to the conclusion that not antiseptics, but asepsis, is necessary for success in operative treatment.

As regards empyema especially, a large number of surgeons not only have long since admitted that success may be obtained without any antiseptic irrigation of the pleura, but even declare categorically against the injection of antiseptic liquids into the pleural cavity. Now, if the antiseptic injection is useless after the large incision of the thorax, it is worse than useless in my operation. In these conditions it may even present some danger, and in all cases creates an obstacle to cure by favoring the production of inflammatory accidents in the pleura.

The possibility of curing even the oldest and most stubborn forms of empyema by thoracentesis with substitution having been demonstrated we must investigate if we should undertake this operation as often as possible and only perform thoracotomy in cases where we do not meet with success or vice versa.

To decide this question we must understand the relative value of thoracotomy.

There is to-day no longer any doubt of the value of pleurotomy, but nevertheless it cannot yet be considered an ideal operation. As Professor Immermann has said: "It is far from fulfilling completely the most moderate scientific indications." After opening the thorax, empyema can be cured only by the agglutination of the two membranes of the pleura, which means the total obliteration of the pleural cavity. The result of this is, then, that even after definite cure the lung is placed in completely abnormal conditions and cannot act like a healthy lung, and manifests a very marked tendency to subsequent diseases. Besides this, pleurotomy is a rather serious operation that necessitates a very long and complicated subsequent

treatment that is very painful for the patients, while greatly taxing their strength.

Many authors complain that the incision allows the external air to penetrate freely into the pleural cavity and exercise a permanent pressure upon the lung, preventing dilation of that organ.

Pleurotomy can, therefore, not be accepted as an ideal method of treatment in purulent pleurisy.

In France the surgeons most in favor of the operation do not advise its use in empyema as a matter of routine.

After noting the facts of the case I am in the habit of allowing my patients to choose between pleurotomy and thoracentesis with substitution. The great majority of them prefer the latter operation.

In these cases I have obtained results identical with those I have already reported. These observations have also proved that the regular application of thoracentesis with substitution will in the great majority of cases lead to perfect cure, even in the severest forms of the disease.

I have now under observation a patient 46 years of age who has been troubled these three years with an empyema of the left side; nevertheless, after six thoracentesis with substitution, amelioration seems to progress regularly toward a definite cure.

In my other cases cure was obtained after two, three, four, five or six substitutions.

The study of these cases has also proved to me that substitutions that lower the specific gravity of the pleural liquid to 1002-1003 are alone capable of quickly suppressing the suppurative process in the pleura, while imperfect substitutions have only a temporarily favorable action and are not curative.

Since the flow of pus is generally slow, we can obtain a sufficient substitution (if we are at all pressed for time, or if our capillary trocar gets plugged) only by the use of an aspirator.

The operation should be repeated every 6-10 days until suppuration stops and the lung, gradually and

steadily, takes the place of the exudate.

The time necessary for the operation varies according to the quantity and viscosity of the intra-pleural liquid, but never exceeds two hours.

I will add that I have never met with any accident, as might at first be feared.

I have often noticed that clots and shreds of false membranes soften and dissolve in the saline solution.

I have observed in several patients that the first two or three thoracenteses gave issue to a rather liquid pus and were followed by a temporary amelioration and by a rapid reproduction of the exudate.

Further repetition of the operation gave very thick, yellowish masses only, and after the evacuation of these commenced a progressive amelioration that was soon followed by a definite cure.

It results from this that the presence of numerous adhesions of the lung and especially of encapsulated effusions constitute a contra-indication to our operation.

Doubtless in these cases thoracentesis with substitution cannot destroy the adhesions, break down the

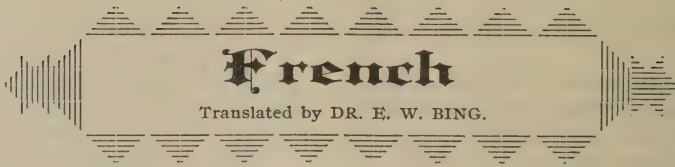
partitions that separate the collections of purulent matter and carry away the membranous attachments that prevent the dilation of the lung and preclude the possibility of cure.

When practiced, even in these unfavorable conditions, the operation produces a real, although temporary, amelioration. Fever diminishes, appetite returns, the severe respiratory and circulatory troubles disappear; in short, the patient's strength improves and the successive dilations of the lung prevents this organ from forming adhesions with the thoracic wall. No one will wish to deny that these are eminently favorable conditions even in those cases where, thoracentesis having failed, we must resort to pleurotomy. We are thus brought back to the conclusion (which is only a paraphrase of the opinion given a few years ago by Dr. Moutard-Martin).

Let us advise treatment by thoracentesis with substitution in the beginning of every purulent pleurisy; it is the only rational method.

Only in those cases where the exudate is much partitioned off and shows an exceptional tendency to reproduction should we have recourse to pleurotomy.





DESQUAMATION CONSECUTIVE TO TYPHOID FEVER.

M. Weill has noticed the frequency of desquamation in these cases. Comly has since then observed 19 cases of typhoid fever in young persons and has been able to confirm the observations of Weill. He has also remarked that the process always follows. Sudamina is in direct proportion to the intensity of the latter and if of favorable prognostic significance of the method of treatment.

—Curier Med.

ON THE TRANSMISSION OF PHTHISIS FROM MOTHER TO CHILD.

Bolognesi has collected statistics of 13 cases of tubercular women who were accouched at the Cochin Hospital. He examined the placentae of all the cases and some of the organs of the children. The results were negative. In every case he examined the placenta, the blood from the umbilical cord, taken at both the fetal end and also from the placental end, he did not find either tubercle lesions nor bacilli. He believes that hereditary tuberculosis is a matter of predisposition, the parent giving to the child a suitable "soil" for the development of the germs when received into the system. Children of a tuberculous mother should be given a healthy nurse and be isolated or, better, removed from the house.

Porak examined the lungs of a child from a tuberculous mother and found lesions, which at first sight looked like tubercles, but were proved histologically to be bronchial dilatation with peripheral sclerosis. He thought we should be careful before affirming the existence of congenital tuberculosis.

Charpenter said that children from a tubercular mother are generally at

birth large and well developed; he doesn't believe in the intra-uterine contagion of tubercle.

STERILIZED OLIVE OIL AS A LOCAL ANESTHETIC.

Loup in the Courrier Medical describes a method suitable for small operations, which has been successful in his hands. He uses olive oil which has been boiled for five minutes, and in dental operations has found it equal to cocaine in its effects, while it avoids the possible danger from the drug. It acts by its pressure on the surrounding tissues.

TWO CASES OF POISONING BY BORIC ACID.

This drug is not as generally considered altogether harmless, as the following cases will prove.

The first occurred in a woman of 55, a neuropathic, suffering from a large carbuncle of the back—there was moderate fever, the urine was normal. Three days after opening the carbuncle it was dressed with a poultice of boric acid and flaxseed in equal parts, and two grammes of the acid were given each 24 hours. Chloral was given at night.

On the fourth day of this treatment the patient became agitated, could not sleep, and had fleeting chills. An eruption of red papules showed on the face, which, together with the scalp, became tumid. The eruption spread to the rest of the body. Thirst was marked; temperature, 38.8 C. Not understanding the case, all treatment was suspended. The eruption was proved not to be due to chloral.

The second case was a rheumatic man, subject to bronchitis, and attacked with cerebral softening. A carbuncle appeared on the neck—pain moderate; urine normal. After opening the sore was dusted with

boracic acid. At first everything went well, but after the third dressing eczema appeared all over the body. The digestive function was much disturbed, vomiting of bilious matter; profuse sweats; somnolence; diarrhea; failing of appetite, and, finally, eight days after commencing treatment, the patient died. The wound had in the meantime done well. It seems proved that boric acid absorbed in quantity may determine very serious results, if not death.

—La France Med.

THE PATELLAR REFLEX.

The diagnostic importance of this in nerve pathology is well known; it is seldom wanting in healthy persons, even during sleep. It is usually exaggerated in cerebral lesions; lesions of the lateral columns; is wanting in degeneration of the posterior columns of the spinal cord, and in tabes, where it is an important symptom from the commencement of the disease, the return of the reflex indicating amelioration. There are, however, exceptions. Thus the reflex may return in an ataxic, suffering from an apoplectic attack. Pick has found that the sensitive medullary fibres transmitting the reflex, still contain healthy normal fasciculi. The reflex persists so long as the radicular zone of the cord between the dorsal and lumbar regions is not affected. The sensitive fibres conveying the patellar reflex are situated in this zone, but do not form a compact fasciculus.

Pick has also noted another ex-

ception. The brain exerts an inhibitive action over reflexes, which explains their exaggeration in cerebral disease. And it often happens that the patellar reflex is wanting in the paralytic insane, with lesions of the brain cortex; it is the same with lesions which diminish the cranial capacity. According to Meyer, in cerebral tumors, degeneration of the intra spinal prolongations of the posterior roots are found. Perhaps in this case the cerebral compression is extended along to the cord. Dinklen has, in fact, found the same lesions in hydrocephalus and in cerebral tumor. Pick has also described degenerative lesions of the prolongations of the posterior root in several cases of cerebral tumors, which would seem to confirm the above statements.

—La France Med.

CONGENITAL IMMUNITY.

An observation on congenital and persisting immunity to variola, by intra uterine transmission, is reported in the *Journal of the Academy*. The young man was 27 years old, and was vaccinated during infancy without result. On joining his regiment, was again vaccinated, also unsuccessfully, and again on both arms three months later, with negative result. Was the immunity due to an attack of variola during intra uterine existence or to an immunizing influence transmitted through the placental circulation? Since the child at birth showed no traces of an eruption, the second hypothesis seems most tenable.



Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

THE SYSTEMIC CONSERVATION OF TRAUMATIZED MEM- BERS.

By M. Paul Reclus.

No more traumatic amputations! Such is the revolutionary doctrine which I have some time since promulgated, and such I again defended, at the late nineteenth French Congress of Surgeons.

Instead of immediate amputation of a mangled limb, after thorough preparation, I carefully embalm it in antiseptic dressing and wait for a spontaneous separation of the living from the dead structures.

These views are based on my own observations alone, which it is true are not numerous, being a series gathered from my service in eight years in Tenon, Broussais and Pitie hospitals.

But they were of such a grave character, and the success of their management so satisfactory, that a positive demonstration has been made of the propriety of the mode of procedure instituted. Besides, here are the facts, and let the reader decide for himself:

I shall be very brief with my earlier cases, already published. My first patient, was a painter, 26 years old, who slipped while mounting a railway carriage, the wheels passing over both limbs. The patient reached the hospital pale and cold from the loss of blood. Both limbs were badly shattered. My assistant had prepared for a double amputation when I arrived. But I simply cleansed and embalmed the limbs. The primary dressings were not disturbed for three weeks.

I found three of the toes of the left foot dead, and separated from the living. On the right foot the toes were in the same condition, with the two corresponding metatarsal bones. In each, sufficient bone was dissected

to allow the integument to fall over their ends and close in the breach. After two months cicatrization was complete and he commenced to walk. On one morning, the year following, he came 27 kilometers on foot, to Broussais, to thank me.

My second case, a young man 23 years old, in amorous despair, placed his head on the rail of a railroad track and waited the approaching train. Here his recollection ends, and hence why he could not explain how it was that it was his right leg and not his head was smashed.

His right leg was dreadfully mangled; the knee joint widely opened, the leg hanging by shreds only. For fifteen centimetres above the knee-joint the femur was denuded of muscles and integuments.

Hemorrhage was slight, but prostration was great. He answered questions with apathy; the face was deathly pale and extremities were very cold. Only one thing was done, viz., to separate with the scissors, the leg from the knee.

The next day reaction was good. As the dressings began to smart badly on the tenth day, they were removed. Towards the end of the fourth week, the dressings were again removed, when it was found that the charred flesh had become detached, and the under end of the femur came into view. For about ten centimeters up, I cleared away the end of the femur and sawed it through. A few sutures were now passed through the granulous flaps and the wound closed. Final cure was speedy and complete. The third case ended fatally, and will be later published in detail.

The fourth case was a man of 33 years, who fell under a train, the wheels passing over both legs near the ankles. He was entered at Pitie within one hour after the accident.

The feet were so twisted off as to rest on the fore part of the legs. The integuments were denuded some distance up the legs, bruised, lacerated and discolored. Now, our patient was in no state to stand another traumatism of double amputation, therefore with the scissors the torn tendons were divided and the feet disconnected. Now, the mangled ends of both limbs were embalmed and comfortably adjusted. On the sixteenth day the dressings were removed, when the bare ends of bone were exposed and the ne-crossed parts were spontaneously separated from the living. Enough bone was excised to allow a covering. The final result was excellent. He now walks on artificial limbs, and is in the service of the Orleans Railway Company.

The fifth case, a mechanic, who was thrown from a wagon loaded with marble and crushed between the wheels and a lamp-post. The fore-arm was fearfully mangled. The skin was torn off over its whole circumference, except for a small isthmus. The limb had sustained a triple fracture. In spite of the extensive mutilation, the man's blood-trunks and nerves escaped. Sensation in the hand was intact, and the radial pulse beat feebly at the wrist. The limb was now adjusted to fix the fragments and embalmed in the usual way. The dressing was first changed after three weeks. Now, through a fistulous opening a large fragment of dead bone was gouged away. It was four months before full restoration of function followed. In this case, which pointed to primary amputation, a useful limb has been preserved.

Sixth case. A currier, of 28 years, had his left forearm caught and mangled in a cylinder. On entry to the hospital the forearm was stripped for a length of 28 centimeters, and eight wide, denuding the two bones. Besides, the hand was so crushed that it seemed quite impossible to save it. The parts were disinfected and embalmed with dressings, which were not disturbed for 28 days. Union of the tissues was non-complete. Some time later,

all the shattered bones united. Some anchylosis in the digital articulations followed, but altogether a fairly good limb was secured.

Seventh case. A mechanic on the Orleans Railway fell under his engine. He entered Pitie with a scalp wound, fracture of the ribs and emphysema. Besides, the right foot was crushed off at the ankle. Attention was directed to his various lesions and the maimed limb was embalmed in the usual manner. His recovery was complete, sufficient integument commencing to come in the nude ankle bones.

* * * * *

The writer proceeds with an able argument in defense of the policy of delay in all traumatisms, which may possibly involve amputations. In Volkman's clinic, in five amputations at the hip and shoulder joint, there were five deaths. And, in the average amputation through a bone-shaft, after serious damage to it, in 75 cases five deaths; all sinking from the addition of fresh shock in the succeeding trauma of amputation. M. Reclus believes that we should always decline amputation immediately after an injury. He proceeds with an argument in support of this attitude familiar to all American surgeons well informed on their own literature on this subject during the past five years.

Poluillon, Verneuil and Tralat solemnly adjured the surgeon, particularly in injuries of the hand or arm, to "regulate nothing with the bistoury; amputate; reset nothing; make asepsis complete and abstain. Leave to nature the work of saving what can be saved. Let the surgeon not forget that neither the most skilled nor experienced can pronounce after injury how much will survive or perish."

M. Reclus never becomes vehement and aroused to the tremendous importance of his subject and energies. "But, if an entire member has been demolished, where do we find a precedent for conservatism?" and says, "My God! Must we now follow in the same lines, indicated by surgeons of another age; must we be guided by the same principles as

they? Do we not know that from the siege of Troy up to the sixteenth century amputation suffered no improvement, when the mangled, bleeding tissues were blazed and charred with sad irons, and whole joints fell away in sphacelus?"

In 1761 Bilguer, the great Frederick's surgeon, general of the Prussian forces, in the seven years' war, horrified at the dreadful mortality succeeding amputations, positively ordered that every description of primary amputation must be prohibited. Leveille, Alquier and Sentin soon followed the intrepid Germans in the direction of conservatism.

M. Reclus closes his invaluable contribution with the following words, well to be carefully weighed by the conscientious surgeon:

"Henceforth no more traumatic amputations."

—*Revue de Chirurg.*, 10 Jan., '96.

(NOTE BY THE TRANSLATOR.)

It does not appear, from the text of M. Reclus' article, that he got his inspiration from an American source, and if he has, he has not graciously acknowledged it.

It is to be expected, however, that so eminent a surgeon and well-known writer would keep himself well-informed with the latest in current literature on such vital topics as the subject of amputation. The writer for more than five years, basing his position on more than five times as many traumatisms as enumerated by Reclus, has published his views on

conservatism in amputation. These may be found in most of our leading journals. His dictum was equally as emphatic as that of the French surgeon, only it antedated it a considerable less; viz.: that, "in civil life a primary amputation should never be performed."

He has taken care to go at length into the consideration of the subject from every standpoint, and concluded that, for manifold reasons, in our age of anesthetics and antiseptics and facilities to suppress both hemorrhage and infection, a primary amputation is little less than a crime which almost nothing can justify or excuse.

T. H. M.

TREATMENT OF WARTS.

Simple cutting off or severe cauterization of warts never cures or prevents their return, but the trouble may be readily relieved by internal medication in most instances. Good results have been obtained from taking ten drops of the tincture of iodine thrice daily, but as a rule the best effects accrue from Fowler's solution, two drops thrice daily (in children, half a drop thrice daily), slightly increasing the dose each week. The warts crumble to pieces and disappear, especially when washing and drying the hands, so that the skin looks normal after two or three weeks. Relapses have never been observed.

—*Medical Herald*.



Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

DELIVERY THROUGH A CENTRAL RUPTURE OF THE PERINEUM.

An example of this rare occurrence is recorded in the *Centrablatt fur Gynacologie*, for February 22, by Dr. A. Sitzinski, of the Court Hospital, of Peterhof, Russia, who had previously reported it before the St. Petersburg Society of Obstetrics and Gynecology. The patient was a primipara, 26 years old, well built and well nourished, but nervous and sensitive. The membranes ruptured in eleven hours after the onset of labor pains. After a short pause, the pains set in again with normal force and frequency, and soon the head appeared at the vulva with each pain, but retreated in the intervals; with the final pains, however, the head no longer underwent these movements, but the perineum became greatly distended, especially in the vicinity of the anus, which was itself highly protruded. To avert rupture of the perineum, the midwife made two lateral incisions about a third of an inch deep. A fresh pain came on, the head was more thoroughly visible at the vulva, and the perineum was more than ever distended, when suddenly the midwife felt under her hand something which she at first took for a bunch of hemorrhoids, expelled from the anus. This turned out, however, to be the child's nose, together with an adjacent part of its face, plainly visible through a rupture near the anus. In a moment more the same pain expelled the whole head through the rupture. The next pain, which followed after a brief pause, drove the entire child through the rupture, and in ten minutes more the secundines came through the same channel.

Ergot was given, the uterus contracted well, the hemorrhage was insignificant, and the woman felt pretty comfortable.

In the posterior wall of the vagina there was found an enormous rent divided into two parts, by a transverse band. Closer examination showed that the vaginal orifice had been driven upward, and that the transverse band was the unruptured posterior commissure of the vulva. Then centre of the perineum had the shape of an irregular polygon, roughly triangular. Its posterior boundary was formed by the junction of the skin and mucous membrane at the anus. The edges of the wound were torn and ragged, and in places showed crushed, dusky-red tissue. In the depths of the laceration there were two longitudinal ruptures of the posterior vaginal wall, one on each side of the *columna rugarum*. The commissure, which had survived the injury, was about half an inch thick. The rectum and anus had not been injured. A deep laceration was found just to the right of the mouth of the urethra, together with several superficial fissures.

—New York Medical Journal.

THE RESULTS OBTAINED BY EXAMINATION OF THE AIR-DISTENDED BLADDER IN FEMALES.

In a paper read before the Obstetrical Society, of Boston, on this subject, by Dr. Edward Reynolds, he said the direct exploration of the female bladder over the old method of *systoscopy* was placed upon a wholly different plane when it occurred to Dr. Kelly that if a woman were

—From the Boston Medical and Surgical Journal.

placed in an appropriate position and air allowed to enter the bladder it could be made to dilate under the influence of negative abdominal pressure, and that the inspection of the mucous lining of the bladder is by this method sufficiently easy, rapid and painless, to be applicable to ordinary clinical work.

In cystoscopy of the bladder, three factors enter into the difference of results:

First, and least important, in the partially dilated bladder, the speculum is necessarily so near to the wall that but a small field can be seen at any one time, and a systematic inspection of every part of the surface is almost impossible from loss of time involved.

Secondly, and more important, in the partially dilated bladder there are necessarily numerous folds in which lesions may be concealed, and, moreover, inspection of the all-important trigonal region is always rendered difficult and sometimes impossible by the presence of even a small quantity of urine which rapidly reaccumulates during the examination.

Thirdly, and most essential, the appearance of the mucous membrane during partial dilatation is utterly and wholly different from its appearance when the bladder is in complete expansion. While the bladder wall is lax the surface looks granular and uniformly pink in color. In contrast to this, in the presence of full dilatation, the normal mucous membrane, shows a white glistening field over which branching blood-vessels throw a coarse network of brilliant red, and against which the smallest ulcer or inflammatory spot exhibits itself with almost startling distinctness.

In conclusion, he says of the value of Kelly's method over the old form of cystoscopy, that it has already changed our ideas of vesical disease, and has certainly transformed the affections of the lower urinary tract of women from the region of diagnosis from obscure symptomatology to that of a clear and definite physical examination; that is, from medicine to surgery.

SUPPURATIVE DISEASES OF THE APPENDAGES.

Polk closes a paper on the surgical treatment of these conditions by saying: "In acute inflammation, with implication of the cul-de-sac, incise and drain. In unilateral suppuration, tubercular inflammation excepted, treat the uterus and remove the diseased appendages by the vagina—*anterior colpotomy*. In double suppuration, vaginal hysterectomy with enucleation and removal of the purulent appendages—the so-called pus sacs. In suppurative disease, whether double or single, if the patient is too weak to stand the radical operation, evacuate the pus and drain, reserving the radical operation for the future. Choose the route (vaginal or abdominal) which the pus seems disposed to select. In broad ligament abscesses—a matter to be determined by a vaginal exploratory section, if necessary—evacuate by approaching the pus through the utero-vesical region, or beneath the peritoneum along the route of the round ligament. In suppurative diseases do not do abdominal section, but, if you should, do not leave the uterus or the cervix.

—American Journal of Obstetrics.

HYSTERECTOMY FOR PUERPERAL SEPTICEMIA.

Dr. Ashton, in his consideration of the pathologic conditions indicating hysterectomy for puerperal septicemia, innumers the following:

1. Suppurative inflammation of the uterus.
2. Tubal and ovarian abscesses.
3. Abscess of the broad ligament.
4. Rupture of the uterus.

Regarding suppurative inflammation of the uterus, it is impossible by any method of examination known at the present time to settle the question in a given case, whether or not the parenchyma of the uterus is the seat of infection. This can only be determined by taking into consideration the history of the symptoms and the treatment which has been adopted, and even then the diagnosis is far from being a positive one. He further says, "If this view of the case

is the true one, hysterectomy should be resorted to at once, and not delayed until there is evidence of a gross pelvic lesion being present.

Of tubal and ovarian abscesses, he says it is extremely difficult if not impossible, to recognize septic changes in the uterine appendages until the process has developed sufficiently to cause an enlargement of the diseased organ. We are, therefore, justified, if local intra-uterine treatment fails to improve the symptoms, in performing hysterectomy.

Although no positive diagnoses of the involvement of the broad ligament or ovary are possible prior to the presence of the gross lesion, yet abdominal section should be performed when it is evident that local treatment fails to establish convalescence.

When a rupture of the uterus occurs during labor and is recognized at the time, hysterectomy should be performed at once.

Tears may occur, however, without producing any symptoms which would lead one to suspect their presence at the time. These cases—the author is inclined to believe—are more frequent than is generally supposed, and when puerperal septicemia rapidly develops in from 24 to 48 hours after delivery hysterectomy should be performed immediately.

—Medical Bulletin.

PULMONARY INFARCTION AFTER HYSTEROPEXY.

E. Garceau reports a case in which he performed hysteropexy for retroversion. Six days after the operation thrombosis of the left common iliac vein and pulmonary infarction occurred, followed by pneumonia and death. In view of this disastrous result is it justifiable to perform abdominal section for retroversion without adhesions, rather than one

of the vaginal operations? Duhrssen's operation is good, and is applicable to simple, uncomplicated cases, the uterus being fastened to the anterior vaginal wall by sutures. In cases complicated by adhesions, Pryor's operation seems feasible. He incises the posterior cul-de-sac, breaks up the adhesions, and excites plastic inflammation by an iodoform gauze packing behind the cervix. The organization of the exudate occurring, by its contraction pulls back the cervix, keeping the fundus forward very much the same as do the normal utero-sacral ligaments.

—American Journal of Obstetrics.

CARE OF THE BREASTS.

Wells calls attention to the necessity of raising and supporting the breasts as soon as the secretion of milk is established. This can be done the best by a bandage made of two thicknesses of muslin and tightened from below and upward. It should be supported by shoulder straps fastened by safety-pins.

—Phil. Polyclinic.

PELVIC NEURALGIA.

In a somewhat rambling discourse on pelvic neuralgia, Hector Treub recommends particularly a course of about thirty baths of sulphur water. Twenty to thirty grammes of sodium monosulphuret are dissolved in a bath at 95 degrees F. The patient begins with a bath of five minutes and gradually increases its duration to twenty minutes. At first there should be an interval of two days, later of one day, between baths. The duration, as well as the frequency, depends upon the fatigue caused; in any case the patient rests for an hour or two in bed after each bath.

—American Journal of Obstetrics.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

- HAEMALBUMIN.** Stable powder, soluble in hot water, A. Contains the salts and albuminoid constituents of blood in the form of acid, non-coagulable albuminates. Roborant tonic (chlorosis, anemia, debility, etc.) Dose, 15 grs. 5 times a day.
- HAEMATOGÉN.** Soft yellow powder, containing 7 per cent. of iron soluble in alkaline fluids. Ferruginous tonic in anemia, etc.
- HAEMOGLOBIN.** The red coloring principle of the blood. Red-brown colloid or crystalline powder. Tonic hematinic (anemia, chlorosis, etc.) Dose, 1-2 to 3 drachms daily in wine or in tablets.
- HAEMOGALLOL.** Reduction product of hematin. Red-brown powder, insoluble in water, insipid, odorless. Easily absorbable ferruginous preparation. (Anemia, chlorosis, debility). Dose 4 to 8 grs. 3 times daily in tablets.
- HAEMOL.** Action, dose, price, etc., same as Haemogallol.
- HELCO SOL.** (Bismuth pyrogallate.) Amorphous, yellowish green powder. Insoluble in W., A., slightly in 0.3 per cent. H. C. Nontoxic (?) in infectious intestinal diseases.
- HELENIN.** Stearoptene from the root of *Inula helenium*, colorless, crystalline needles. Insoluble in water, soluble in hot A., E., oils. Demulcent, antiseptic (whooping cough, catarrh, chronic bronchitis, phthisis). Dose 1-8 gr. 10 to 12 times daily in pill. Applied in 2 per cent. oily solution.
- HOMATROPINE.** Colorless very hygroscopic crystals, slightly soluble in water. Action similar to, but weaker than atropine. The hydrobromate is most used.
- HELIANTHUS ANNUUS.** The flowers and the bark of the twigs are employed as a febrifuge and antiperiodic. Dose 10 to 15 drops of a 10 per cent. tincture 3 or 4 times daily for children.
- HOMATROPINE HYDROBROMATE.** White, non-hygroscopic leaflets, soluble in 10 water. Dose 1-2 gr. Mydriatic. Less irritating and less persistent than atropine.
- HYDRACETINE.** (Pyrodine, Acetyl phenylhydrazine). Colorless-hexagonal, odorless, insipid, lustrous prisms, soluble in 50 water. Antipyretic. Dose 1-6 to 1 gr. Maximum daily dose 2 grs. (Dangerous cumulative blood poison). Externally in 10 per cent. ointment in psoriasis like crysophanic acid.
- HYDRASTINE ALKALOID.** Yellowish-white crystals, soluble in A., E., C., benzine. Practically insoluble in water. Tonic, antiperiodic. Dose 1-4 to 1-2 gr.
- HYDRASTINE HYDROCHLORATE.** Pale yellow, crystalline powder, soluble in water. Astringent (gonorrhea, hyperidrosis, acne, seborrhea, etc.) 1-10 to 1 per cent. solution or 1 per cent. ointment.
- HYDRASTININE HYDROCHLORATE.** Bright yellow hygroscopic odorless bitter crystals soluble in water. Hemostatic vaso-constrictor. (Hemorrhages, metorrhagia, etc.) Dose 3-8 gr. 4 to 5 times daily. Hypodermic injection 8 to 16 min. of a 10 per cent. solution, once daily.
- HYDRAZINE.** (Diamine). Allied to hydroxylamine hydrochloride. Reducing agent. Poison for both animal and vegetable life.
- HYDRONAPHTHOL.** White, lustrous scales, insoluble in water. Antisep-

tic (10 per cent. plasters in tinea tonsurans). Internally as intestinal antiseptic. (Typhoid of enteric fevers, etc.) Dose 3 to 4 grs. every 2 hours. Preferably in keratin coated-pill.

HYDROQUINONE. (Para-dihydroxy-benzine; Quinol). Long, colorless, dimorphous crystals, soluble in A., E., hot water, difficultly so in cold water. Antifermentative, antipyretic, antiseptic. Dose 8 to 12 grs. Largest use as photographic developer.

HYDROXYLAMINE HYDROCHLORATE. Colorless hygroscopic crystals, resembling ammonium chloride. Soluble in W. A., substitute for chrysophanic acid in skin diseases, dangerous if absorbed. Applied in 1-10 to 4-10 per cent. solution.

HYOSCINE HYDROBROMATE. Colorless, odorless acid crystals. Soluble in 2 W., 3 A., partially in E. C. Sedative, hypnotic (acute mania 1-150 to 1-30 gr). Hypnotic inj. (mania) 1-120 to 1-60 gr. Antidotes same as for atropine.

HYOSCYAMINE ALKALOID. White, silky crystals. Slightly soluble in water, readily in A., E., C. Dose hypnotic, sedative (acute mania, 1-8 to 1-4 gr. chorea, alcoholism 1-120 to 1-30 gr.) antisialagogue, antispasmodic asthma, epilepsy, etc., 1-120 to 1-30 gr. Antidote same as atropine. C P cryst.

HYPNAL (Chloral antipyrine.) Small rhombic crystals, tasteless, odorless; soluble in 6 water. Hypnotic, analgesic. Dose 7 to 15 grs.

HYPNONE. (Acetophenone; Methylphenyl-ketone). Colorless, oily liquid, with a peculiar pungent odor and taste. Slightly soluble in water, readily in A., E., oils. Hypnotic, reduces arterial tension and slow respiration, hence should be administered with care. Dose 1 to 3 min.

IATROL. Odorless powder. Substitute for iodoform.

ICHTHYOL. (Ammonium sulphoichthyolate; ammonium ichthyol sulphonate). Clear reddish brown, viscid liquid with bituminous odor

and taste. Miscible with water. Partially soluble in E., A. Antiseptic, vaso-contractor, alternative solvent, gastric and renal tonic astringent. (Skin diseases, blenorragia, scrofula, syphilis, etc.) Applied in 5 to 50 per cent. ointment or solution. In gonorrhea, 1 to 2 per cent. solution. Dose 3 to 10 min, 3 times daily.

INULIN. (Alantin.) Dahlin Alant-Starch.) From Inula Helenium. White crystalline powder. Recommended for bread for diabetics, also as stimulant expectorant. Dose 1 to 3 grs.

IODOANTIPYRIN. (Iodopyrine.) Colorless, tasteless, prismatic crystals, difficultly soluble in cold, readily in hot W. Antipyretic solvent, etc. Same therapeutic action as antipyrin and sodium iodide would have separately. Dose 8 to 24 grs.

IODINE TRICHLORIDE. Orange yellow, volatile needles; with a pungent, irritating odor; soluble in W., A., E. Powerful antiseptic and disinfectant. (Indolent ulcers, skin diseases, blenorragia, etc.) Applied in 1 to 1000 or 1 to 12,000 solution. Dose, 4 drachms of 1 to 1,000 solution. Use with caution.

IODO CAFFEINE. Colorless crystals, soluble in W. Cardiac, amplifying the diastole (mitral stenosis) and in degenerative processes of the liver. Dose, 5 to 7 grs.

IODO CAESIN. Yellowish, odorless powder, recently put forward as a substitute for iodoform.

IODO EUGENOL. Yellowish, insoluble, odorless powder. Antiseptic.

IODOL. (Tetra-iodopyrol.) Pale yellow, crystalline, bulky powder without odor or taste; insoluble in water, soluble in 3 A., E., oils. Contains 89 per cent. iodine. Substitute for iodoform, being used in same manner. Dose, 8 to 15 grs. 2 to 4 times daily.

IODOL CAFFEINE. Grayish crystalline powder containing 74.6 per cent. of iodol. Permanent. Said to have superior antiseptic value to iodoform.

(To be Continued.)

Prescriptions.

Bronchial Asthma.—Citrate of caffeine, 5 grains in cachet, or dissolved in water every four hours until bronchial spasm is relieved, after which give at longer intervals, to prevent relapse. If attack come on fairly regularly in the early morning, give 5 or 10 grains at bed-time, repeating, if necessary, in the morning, as often as indicated.

—E. M. Skerritt, Practitioner.

Digitalis in Pneumonia.—Naegeli-Akerblom regards digitalis as the most valuable agent in acute pneumonia when used in large doses. The drug, according to his investigations, causes hyperleucocytosis, both in man and animals. He advises hydrotherapeutic measures in connection with the digitalis.

—Cent. f. inn. Med.

A TONIC.

In anorexia, chlorosis and phthisis Efele gives one or two tablespoonfuls of the following mixture, one to three times a day, half an hour before eating:—

R. Iceland moss 5 dr.
Carbonate of ammonium ... 15 gr.
Water ½ oz.
Macerate for half an hour, boil and add absolute alcohol ... 2 oz.
Allow to settle, decant and add liquorice juice 1 oz.

—Le Progres Medical.

Topical Anesthesia.—Dr. Mayet has devised the following mixture, as a local anesthetic:—

R. Petrovaselin sterilized by ebullition 200 grms.
Iodoform 10 grms.

This is well mixed, and to it is added the result of a mixture by trituration of:

Cocaine 2 grms.
Oleic acid 10 grms.

For anesthetic dressing of uterine pain Dr. Mayet chooses a sterilized sponge of the size of a walnut, fixes it by a thread, steeps it in the

mixture, and applies it to the cervix. He obtains thus cessation of hystericalgia, neuropathies from uterine deviations, and cervical metritis. He dresses, with the same application, small contused wounds, and advises it in furuncles, boils and medium-sized burns.

—Medical Standard.

Dry Eczema with Pruritus:

R. Menthol 30 gr.
Resorcin 15 gr.
Sulph. precip. 2½ dr.
Zinci oxidi 3½ dr.
Vaseline 1 oz.

Ft. unguent.

Thibierge.—Therapeutique des Maladies de la Peau.

Insomnia.—In various neuroses, where both sleeplessness and constipation are common symptoms, the following is a useful prescription:

R. Ext. cannabis Indicae.
Ect. belladonnae each ¼ gr.
Pil. aloes c. ferro 4 gr.

Ft. pil. 1.

Sig: To be taken at bed time every night if required.

The last ingredient can be varied according to the case.—Practitioner.

PRURITUS OF THE SCROTUM.

Pruritus of the scrotum is a most painful and rebellious affection. The itching is sometimes so intolerable that the patient becomes almost delirious. Professor Brocq advises the following treatment:

R—Phenic acid dr. 5
Glycerine oz. ijss
Alcohol oz. j
Water oz. 10

Mix one part of this solution with four of hot water, and steep in it a compress folded eight or ten times, and then apply to the scrotum, maintaining it in place with an India rubber suspensory bandage.

As a general treatment, he gives antipyrin in small doses (ten grains repeated twice in the afternoon), and valerianate of ammonia at night.

—Med. Press.

For Physicians' Wives

USES FOR SALT.

Salt puts out a fire in the chimney.

Salt in the oven under baking tins will prevent their scorching on the bottom.

Salt and vinegar will remove stains from discolored teacups.

Salt and soda are excellent for bee stings and spider bites.

Salt thrown on soot which has fallen on the carpet will prevent stain.

Salt put on ink when freshly spilled on a carpet will help in removing the spot.

Salt in whitewash makes it stick.

Salt thrown on a coal fire which is low will revive it.

Salt used in sweeping carpets keeps out moths.

LEMONS FOR THE LUNGS.

Lemons are an excellent remedy in pulmonary diseases. When used for lung trouble from six to nine a day should be used. More juice is obtained from lemons by boiling them. Put the lemons in cold water and bring slowly to a boil. Boil slowly until they begin to soften; remove from the water, and when cold enough to handle squeeze until the juice is extracted; strain and add enough loaf or crushed sugar to make it palatable, being careful not to make it too sweet. Add about twice as much water as there is juice. This preparation may be made every morning, or enough may be prepared one day to last three or four days, but it must be kept in a cool place.

TO MAKE PERFECT LEMONADE.

Perfect lemonade is made as follows: For a quart take the juice of three lemons, using the rind of one of them. Carefully peel the rind very thin, getting just the yellow outside; cut this into pieces and put the

juice and powdered sugar, of which use two ounces to the quart, in a jug or jar with a cover. When the water is just at the boiling point, pour it over the lemon and sugar, cover at once and let it get cold.

FOOD FOR DYSPEPTICS.

MILK TOAST.

Use stale, salt-rising bread made from wheat middlings, cut in slices half an inch thick, toasted a nice brown in a brisk oven and soaked in sweet milk, which has been boiled and slightly thickened with flour and seasoned with salt and butter.

RICE.

One cup of rice, well washed; put in a large granite basin with one cup of water and half a teaspoonful of salt and allow to cook slowly until all the water is taken up by the rice. Then add two tablespoonfuls of sugar and five cupfuls of new milk and stir it well, after which bake in a slow oven for several hours. Serve with sweet sauce.

CORNCAKE.

One egg, one tablespoonful of brown sugar, one-half teaspoonful of salt, one-half pint of sour cream, one pint of sour buttermilk, three-fourths of a teaspoonful of soda and one teaspoonful of baking powder. Beat the egg and sugar together until very light, stir in the cream and salt, the buttermilk and then the soda dissolved in a little warm water, and beat all into a stiff batter with three parts cornmeal and two parts fine flour, into which the baking powder has been sifted. Set the dish in the steamer and let it steam three hours; then bake it twenty minutes in a hot oven.

ABOUT THE BROOM.

Don't set a broom down when through with it. Bore a hole in the handle and hang it up.

Don't let it get dirty. Cleanse often by putting in a pail of lukewarm soapsuds, or hold under a faucet.

Don't use a broom straw to test a cake. It is not neat and is very dangerous, as many brooms are soaked in an arsenical solution to give them their green color.

Don't sweep with your back. Use your arms and the broom, with not too long a stroke.

Don't put salt on the floor when about to sweep. Dampen a newspaper, tear in pieces and throw on the carpet.

RECIPES FOR DAINTIES.

Roll freshly roasted peanuts to a powder. Mix with thick mayonnaise dressing. Spread slices of buttered rye bread with the mixture.

Chop hickory nuts, walnuts and pecans, a cup of each. Mix with half the quantity of hard-boiled eggs mashed to paste. Then mix mayonnaise dressing. Slice and butter bread, cover each slice with a crisp lettuce leaf and spread with the nut paste.

Clear jellies are much more attractive to the eye than are clouded molds, yet one sees many of the latter sort. To obtain perfect results with gelatine, boil the mixture for a moment with the beaten white of an egg, then strain through a fine sieve.

BOOKS AND PAMPHLETS RECEIVED.

THE NEUROTIC ORIGIN OF PULMONARY CONSUMPTION. Reprinted from the New York Medical Journal for February 15, 1896.

A CONSIDERATION OF CERTAIN DOUBTFUL POINTS IN THE MANAGEMENT OF ABORTION. By Charles P. Noble, M. D. Reprinted from the Therapeutic Gazette, January, 1896.

AN OUTLINE OF THE PHYSICAL THEORY OF FERMENTATION, IMMUNITY AND INFECTION, AND ITS BEARING ON THE RATIONALE OF SERUM THERAPY. J. W. McLaughlin, M. D., Austin, Texas. Reprint from Transactions Texas State Medical Association, 1895.

THE KINETIC AND THERAPEUTIC ENERGY OF DRUGS. By J. W. McLaughlin, M. D. A Theoretic Explanation of the Causes of Drug Energy, and the Rationale of its Action on the Living Tissue—Elements of the Body.

THE BACTERIOLOGY OF DENGUE. By J. W. McLaughlin, M. D., Austin, Texas. Reprint from Texas Medical News.

EVISCERATION OF THE EYE-BALL. Mule's Operation—Insertion of Artificial Vitreous (Glass

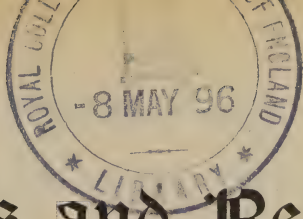
Ball). By L. Webster Fox, M. D. Third Paper. Reprinted from the Medical Bulletin.

BURNS OF THE CORNEA; ELECTRIC-LIGHT EXPLOSION CAUSING TEMPORARY BLINDNESS; TRAUMATIC INJURIES TO EYES—HYPOPYON. By L. Webster Fox, M. D. Clinical Lecture Delivered at the Medico-Chirurgical College, March 9, 1895. Reprinted from the Medical Bulletin.

SOME OF THE NEWER PROBLEMS IN ABDOMINAL AND PELVIC SURGERY IN WOMEN. By Dr. C. P. Noble.

A CASE OF DERMOID TUMOR OF BOTH OVARIES COMPLICATED BY A DEPOSIT OF BONE UPON EACH SIDE OF THE TRUE PELVIS, HAVING NO CONNECTION WITH THE TUMORS. By Charles P. Noble, M. D., and Joseph P. Tunis, M. D. From the American Journal of the Medical Sciences, December, 1895.

ELECTRICITY IN ELECTROTHERAPEUTICS. By Edwin J. Houston, Ph. D., and A. E. Kennelly, Sc. D. Cloth. 412 pages, 128 illustrations. Price, \$1. The W. J. Johnston Company, Publishers, 253 Broadway, New York.



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Original

ON CELLULITIS OR PANNICULITIS ADIPOSA AND MYITIS OCCURRING AS USUAL COMPLICATIONS TO GYNECOLOGICAL DISEASES.

BY RICH. HOGNER, M. D., BOSTON, MASS.

Cellulitis—as the word is used here—signifies inflammation of the adipose tissue; it is, if I may so describe it, a panniculitis adiposa. Therefore it is not a question of pelvic cellulitis. To avoid a misunderstanding it would be better if one of these two, so-called cellulitis, could receive another name, but on the other hand, one cannot be easily misunderstood in speaking of the one or the other, for the connecting circumstances show clearly enough which is meant. The word cellulitis in the sense of panniculitis adiposa has won its abode in medical terminology as well as the idea of pelvic cellulitis; therefore, I will retain it.

It is fully 15 years since Dr. Mauritz Salin, professor in gynecology in Stockholm, Sweden, demonstrated cellulitis, or as I should prefer to call it panniculitis adiposa, and, although he has constantly since then presented it to his pupils, it is not mentioned in medical literature, to my knowledge, except by Drs. C. D. Jos-

ephson and A. Kjellberg, both of Stockholm, of whom the former described the disease in Hygeia some years ago, the latter in Eira, both journals published in Stockholm.

The symptoms of cellulitis are subjective and objective.

The subjective ones are partly sensations of pain, partly nervous symptoms resulting therefrom. The invalid complains according to locality and intensity, of ill-defined, uncomfortable feelings of numbness, creeping, stiffness, lassitude, etc., in certain parts of the body, which change to tenderness on motion; pain from pressure, aching, difficulty in lying, in sitting, feelings of "something pressing down," etc., it being impossible to bear the touch of clothing, especially in cases of abdominal cellulitis. The patient often complains of a swelling of the bowels, and in pectoral cellulitis of difficulty in breathing. In short, complaints are made of a great number of dissimilar symptoms, most resembling so-

called rheumatism, to which may be added, in case of long-continued and extended cellulitis in a person disposed to it, depression, unrest, anxiety, irritability, in short, a number of neurasthenic symptoms of depression, which must be truly trying both for the patient and for those associated.

The most common objective symptoms are modified consistency of the subcutaneous adipose tissue, which on tapping with the fingers seems to be less elastic and more lumpish than formerly; moreover, it is rather indurated. One can feel the small fat lobules and fat cells plainer than usual (can sometimes see them distinctly indicated through the skin). They give the sensation of manipulating firmly fixed fatty lobuli on infiltrated, hard adipose tissue. The patient sometimes can bear some pressure before feeling pain, but again, cannot endure the slightest touch.

Sometimes the modifications are so fine that the examiner does not detect any change of consistency, while the patient, on the contrary, is very sensitive to its hurting. The size of such an infiltrated adipose tissue varies from a little grain in the healthy tissue to a continuous patch as broad as two palms of the hand and the locality as well as the distribution also varies greatly.

Cellulitis can appear simultaneously in several parts of the body, widely separated from each other, when it is called "general cellulitis," or it is found only in one or two spots and is called "local cellulitis." Scarcely any subcutaneous adipose tissue exists in which I have not found some evidence of inflammation from the scalp to the soles of the feet, but it appears most frequently in the abdomen (60 to 70 per cent.), below and beside the navel, in the sides—perhaps most frequently the left side—in the lumbar region, besides in regio pubis. One finds the nodules in the back and the breast, in the arms and legs, in the scapular and gluteal regions, and here, as in the abdomen, most frequently causing a slight swelling of the affected part.

The diagnosis is generally easy and

is founded on the subcutaneous position, tenderness and manipulative discoveries. The best way for manipulation is to grasp the skin and subdermis firmly between the thumb, middle and ring fingers of both hands, lift the subcutaneous tissue up and at the same time roll it between the fingers. In case of more extended cellulitis, one grasps the skin and lifts it up with the whole hand, with the thumb, thenar and hypnothenar on one side and the inner surface of the outstretched fingers on the other side, and in this position roll or systematically press the tissue.

A differential diagnosis is hardly worth speaking of before a conscientious examiner. Only myites and edema can come into consideration. Myitis, however, lies deeper and cannot be detected by touch, while lifting the skin and subcutaneous tissue only. Edema is more pliable, more evenly distributed, not lobulated, not tender to the touch and more doughy.

It is very easy for a superficial or one-sided examiner to be mistaken as to the nature of the disease and still more so for the patient himself. For this reason one hears of gastritis, uterine displacement, appendicitis, bladder trouble, heart failure, pleurisy, etc., according to the locality of the pain, not to speak of rheumatism, influenza, hysteria, affection, laziness, and what not.

The duration of the disease becomes chronic as a rule, with a beginning frequently unmarked. The patient can have cellulitis for years without knowing it. It may become acute or is discovered by accident. The symptoms can come and go like ordinary muscular rheumatism, but once subjectively established, they remain, often obstinately, and then leave the patient no rest. If seldom begins acutely or disappears hastily. Once I have, however, seen acute developments during a course of treatment, as a result of taking cold, which disappeared in a couple of days.

Treatment.—This consists chiefly in massage, which in many cases is introduced with advantage by means of vibrations with Liedbeck's vibra-

tor, and which massage is applied nearly the same as the palpationary manipulation; that is to say, the cutis and subcutaneous tissue are lifted and one tries, without losing hold, to roll, knead and press asunder the inflammatory products. A trace of salve blended with lanoline is applied to the skin. P. H. Ling, founder of the system of medical gymnastics and scientific massage, says "too little can be increased, but too much cannot be reduced," and this applies especially to massage for cellulitis, which can produce harmful results and have to be abandoned if it is taken up too vigorously. Some patients are in beginning so sensitive to touch that they shrink from even the thought of it, complain if the hand is laid ever so lightly on the affected part; others, on the contrary, can bear quite strong handling, and especially after the first treatment. Sometimes a full cure can be effected and the patient freed from all subjective (sometimes also objective) symptoms, and without a relapse. Again, the health returns, but only for a few months or years. Another massage treatment will then relieve the patient for a longer or shorter time. In very obstinate cases there is seldom any improvement at all. Many patients become well after a couple of weeks' treatment; others only after several months' daily massage. If the masseur is too rough in his handling, he can expect nothing but a failure. Be he too light-handed, he will not succeed either; but he has this in his favor, that he accustoms the patient in the beginning and prepares him for as strong treatment as necessary.

Prognosis.—This depends, on the rule already given—*quoad salutem completam incertum; quod solum incompletam bonum*—because even the worst form of cellulitis can generally become tolerable after a lengthy treatment or disappear almost entirely.

As to the appearance of this sickness, it is much more frequently met among women than men, and most often among the poor. It appears among people of all ages, from, ac-

cording to Dr. Kjellberg's tables, "under 10 years of age to over 50." Moreover, it is probably spread over the whole globe. I have found it in Europe, from England to the heart of Russia (Moscow), also from the north of Sweden to France and Southern Germany, as well as in America.

When we consider how often women are improperly clothed, many times in "open drawers," or among the poor often in none at all, and further consider that abdominal cellulitis is the most frequent form, there can be no doubt that so-called "taking cold" is the most common cause of the disease. My case, No. 1, of a person who "took cold" during treatment and was seized with an acute form, is an illustration. Another probable cause is a long-continued or oft-recurring mild form of trauma, or a short, violent form. For instance, the pressure of skirt bands or corsets, leaning against a wash tub, blows, etc.

"The only fact," says Dr. Kjellberg, "which is worth mentioning in regard to etiology is the relation of fat and of nervousness. It is usually fat persons, who are also nervous, that have cellulitis. That fat persons are most exposed to it is not strange, as it is just in fatty tissue the disease locates. The connection between nervousness and cellulitis is more difficult to explain; but one can perhaps explain it in this way: that a person with cellulitis does not feel well and the abnormal sensations which cellulitis occasions, must sooner or later cause nervousness."

As to pathogenesis a microscopic examination does not seem to have been made, but judging from the manifestations of the disease, it depends on exudations or inflammation, with the formation of connective tissue, in the region of the subcutaneous fat, especially the interlobular or intercellular one, perhaps also an analogous change in the fat cells themselves and their protoplasmic membranes.

After this description of cellulitis now the question might well be asked, "Why, or of what interest is it to gynecologists?"

Some records ought to explain:

Case I. Mrs. T., 48 years old, fell down backwards 29 years ago; laid in bed 14 days afterwards; treated with massage of the back. A couple of years later was troubled with frequent "passing of urine," which also was treated with massage of the back and abdominal compresses. Recovery followed soon. She married 20 years ago, and had only one child, now 19 years old; was obliged to lie in bed two months after confinement. Menses always regular, never absent except during pregnancy, and the time immediately following. Has suffered from leucorrhoea even since confinement, until a couple of years ago, when it, together with the menses, ceased. Says she has always been careless of her health and never saved herself. Has always worn "open drawers." Her health, which was good before marriage, has gradually failed, and for the last four years has been in a low state. During this time she has been troubled with gastric symptoms and rheumatoid pains, sometimes in the legs, but mostly in the abdomen, just over the left groin. She walked with difficulty and preferred to sit still. "Something has seemed to fall down once in a while," she says, indicating the uterine region. She has not been able to endure a corset, and has slight pain in the back if attempting to lie on it. She has become more nervous and irritable; evacuation scarcely once a week. She has been ashamed to seek a physician, but her condition finally forced her to it.

Status praes. 10 Feb.—Spirits depressed. Flesh good; particularly strong development of fatty tissue in the abdomen. Skin or rather panniculus adiposus is so tender for a space beginning an inch left of spina lumbalis over the whole left side of dorsum abdominale and the front of left abdomen to near the navel line, that the patient complains loudly at the least touch. On manipulating the fatty tissue here can be felt—as is partly visible to the naked eye—indurated fat lobules. On the corresponding right side an indication of the same change is to be found,

but the parts are not painful, when moderately pressed. The knees are rather larger, with thickened synovial membrane; uterus double natural size, hard and bent forward, without cervix erosion. No prolapse of the womb or of the vagina. The left parametrium, ovarium and surroundings somewhat infiltrated and very tender. In the right ovary or ligamentum there was a fibrous tumor as large as an orange, scarcely tender.

Treatment of this case.—Vibrations on the back, ordinary massage of the anterior abdominal region, also "cellulitis massage" and so-called gynecological massage of the uterus, the left ovarian region and left parametrium. At first the treatment was confined to the vibrator and "abdominal massage." From the third day cellulitis and "gynecological massage" could be employed, and improvement began to be so rapid that after the third week the patient could walk two miles and back, and had an evacuation nearly every day. One day during the fourth week of treatment she declared herself perfectly well, and I found it necessary to continue treatment only one week longer, when there suddenly came a hindrance to improvement. The weather, which had previously been summer like, though in the middle of winter, suddenly changed and a north wind and snow storm set in. The patient was out and was nearly blown down; she thought she would never be able to get home, and she plainly felt the wind blow up through the "open drawers." The following day the patient presented nearly the same appearance as at the beginning of the treatment. The cellulitis, which had nearly disappeared, reappeared, hard, tender and knotty, as before. Besides this the patient complained of nausea and stomach ache, and the intestines bloated with gas. After three days' treatment as before with ordinary abdominal and cellulitis massage, the patient felt well again, and the cellulitis had in a great degree disappeared. It is scarcely necessary to add that after this attack the patient hastened to

obey the order to clothe herself in warm drawers. When discharged the uterine trouble remained almost unchanged, and still the patient felt fully recovered.

Case II. Mrs. P., 28 years of age; has three children, 8, 6 and 4 years old; says she got uterine difficulty after the last confinement; has constant pain and weakness in the back; radiating down the legs; pain in stomach and down through the groins; fluor albus; regular menses; sometimes frequent urination. During a long railroad journey a couple of years ago, she "caught cold" and could not retain her urine. Treatment for it and for uterine trouble (locally) was given by a celebrated gynecologist in the West, with partially good results, although the weakness of the back continued. Returning to Boston she sought a well-known surgeon, who treated her for several weeks, by "packing the vagina" and local uterine applications, but without any apparent improvement.

Status *præ*s.—Uterus enlarged; tender to the touch; somewhat more fixed than normal; muco-purulent secretion covering the corroded cervix opening. On the abdomen extended cellulitis and myitis, and nearly the whole *erectores spinæ* were affected, but principally in the *lumbo dorsales*, also the *glutei*.

The treatment consisted in massage of the uterus, the cellulitis, the abdomen and the diseased muscles. After three weeks the myitis had almost disappeared, flowing had ceased and the size of uterus had somewhat decreased. The abdomen had diminished, so that the patient had to "take in" her garments, but the weakness in the back was still felt if the patient strained herself over chamber work, etc. After two more weeks of treatment, the myitis was entirely gone, and after 31 treatments the patient could be called well. At present, a half year or more having elapsed, she remains well, and has resumed all the work of her household.

From the above cases it would appear that myitis simulates gynecolo-

gical diseases or is at times a complication.

Myites which can be symptomatically taken for uterine trouble are those forms that on account of their location in the abdomen, pelvis, or adjacent parts, cause the patient to attribute the trouble to some genital organ; or whose symptoms also correspond with those of some gynecological diseases. Inflammation, in the muscles, now under consideration, often causes pain radiating from the back down into the lumbar region, into the abdomen, or from the lumbar region down the legs. The pain radiates through certain lines or is more or less diffuse and remains obstinately, or goes and returns like "rheumatism." Sometimes they are felt most on walking; sometimes after extra work, and so on; in short, on occasions where the muscles are set into relatively too hasty action, or have been too much strained. By the subjective symptoms, therefore, one can often decide on the location of the myitis, a supposition that is fully borne out by palpation, because the patient always finds out "*puncte dolorose*," even if the physician could not detect them by the changed consistence of the muscles. Besides these local sensations of pain, one often discovers reflex pains, most frequently attributed by the patient to the uterus or its vicinity. The result is that whenever the patient has got the idea by herself or has been told by a physician of an otherwise subjectively symptomless gynecological affection, she is convinced that all her aches proceed therefrom. The subjective symptoms of cellulitis, myitis and some gynecological diseases can be so similar, that frequently it is only by objective examination and sometimes only the results from treatment one can determine their origin.

The subjective symptoms of gynecological diseases which are most analogous to cellulitis and myitis are those from metritis, endo-, peri- or parametritis, oophoritis, and sometimes in irritable persons from cystitis.

There is no doubt, when cellulitis and myitis complicate a gynecologi-

cal disease, that the categorical symptoms of both diseases increase each other just as one wave can increase another, but it is just as certain that gynecological diseases can be symptomless and that all subjective inconvenience may come from complications, because when the latter are removed, the quasi-gynecological symptoms cease. This has been shown in the cases above cited. The myitis toward which, as gynecologists, we have to direct our attention to, most frequently are those forms in the lumbo-dorsal and gluteal regions; in the latter case, especially, at the origin of gluteus medius, sometimes those in the abdominal and hip muscles, as also, less frequently, in psoas muscles.

Myitis can depend, as well as cellulitis and gynecological diseases, partly on changes of temperature, but the most common are, however, overdoing and trauma.

If we were to attribute to myitis every muscular change not due to neoplasm or a similar cause, then we must refer to it contractions, whose cause is partly myopathic, partly neuropathic, and furthermore we should have to refer it to *contractura ani*, which often complicates a gynecological disease, yet whose treatment cannot come under the same head as the other myitis.

As to chronic inflammation in muscle psoas, it is a so very seldom noticed disorder, that hardly anyone thinks about it, and still it is important enough. It can simulate much more than is here treated of. For myself, I have only once formed a diagnosis upon it, namely in a case of chronic appendicitis, in which the patient, a man, 40 years old, was operated upon successfully. After the operation mild pains remained in the cecal region, pains which I considered were due to infiltration. They were felt in the lower portion of the psoas magnus dextra, and disappeared with the infiltration, after several months' daily treatment with massage. The cause of both appendicitis and psoas myitis was in this case probably a trauma of 23 years before, when as a youth, a large stone

rolled over the stomach of the patient.

In medical literature I have succeeded in finding only one author who names psoas myitis, and that is Dr. E. W. Wretling, of Stockholm, who tells of five cases. I will take the liberty to relate briefly three of these cases, which are of interest to the subject of to-day.

Case III. Mrs. H. H., 33 years old, has suffered in "lower part of bowels" for some years, her suffering increased noticeably by daily labor, with pains in the back, that shot up towards the heart, and occasionally caused palpitation. The patient is anemic and troubled with fatigue in arms and legs. Menses abundant and long continued; the lips of os uteri externum eroded. Palpation produced tenderness in various parts of the abdominal wall as well as in both "psoas muscles." After six weeks' treatment, chiefly with daily massage of abdominal wall and psoas muscles, the patient felt well.

Case IV. Mrs. F. G., 51 years old, was anemic, overworked, suffered from anteflexio uteri, and fluor albo, with periodic pains in lower part of abdomen, also dysuria. During the first two years these pains were thought to be due to uterine disease. But on closer examination it was found that the pain in the lower part of abdomen felt "as if it was in the small intestines," radiating towards the back and down the inside of the thighs. During the pain the patient had "difficulty in bending forward." The psoas muscles were noticeably harder, for which reason they were treated for three weeks with massage, when the tenderness decreased. The dysuria remained.

Case V. Miss A. S., 52 years old, had acquired the habit of morphine by trying to deaden unbearable, frequently recurring, abdominal pains. This painful trouble had been brought on while taking care of a near sick relative, who required much lifting. Abdominal pains came often and sometimes without apparent cause; but usually after a bodily strain, or an evacuation of the bowels, which was particularly difficult. Sleep bad; menses irregular.

The examination discovered partly a contractum ani and partly a very marked tenderness over both musculi psoas.

Besides a "dilatation force" and a mild bath treatment, she had daily massage of the abdomen and of the musculi psoas, resulting in almost a complete recovery. The morphine habit was overcome by constantly decreasing doses under hypnotic suggestions.

The above related cases are only a few, but they show that cellulitis and myitis occur with gynecological diseases. In my practice such a complication has happened in about 50

per cent. Very often both cellulitis and myitis occur at the same time. They will be found more frequent among poor people; cellulitis alone in greater percentage among fat persons.

What has been said is sufficient to show the importance of cellulitis or panniculitis adiposa and of myitis as common complications of gynecological diseases, and as both are best treated with massage and often will not yield to any other form of therapy, they form another reason why gynecologists should not forget massage as among the valuable methods of treatment.

VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

THERMOSTATICS AND THE CIR- CULATION IN SHAFT OF BONES

It has been shown that while a high degree of heat is a potent hemostatic in all operations which include the division of healthy bone, its effect ultimately may be disastrous.

It can be understood that the same objection will not apply with the same force in localized disease of bone, as in circumscribed parenchymatous ostitis with necrosis or any other infective disease, when heat may serve an antiseptic purpose, or stimulant to languid reparative processes; yet, even here, unless great caution be observed, its destructive action may come into play, and unpleasant results may follow.

The most extensive operations on bone are performed under a pulmonary anesthetic. This is necessitated because of the exquisite sensitiveness of living osseous tissues and, be-

sides, oftentimes one must proceed with leisure.

But it should be remembered that, although an anesthetic primarily accelerates the heart's action, it weakens vascular force, thus rendering the tissues more susceptible to the action of a thermogenic agent. We only too frequently witness this demonstrated in those unfortunate cases of burns of the soles or heels, from the water-bag after operations, in which a pulmonary anesthetic has been employed. We may find to the sense of touch that the water seems of no greater heat than can be comfortably borne; but, applied over the enfeebled tissues, it is sometimes enough to work serious damage, by killing the tissues, to bone.

Hot water applied to the soft parts is not so mischievous in its effects as a hemostatic as it is to unyielding osseous structures, for the reasons that the inflamed ves-

sels are enabled to expand and transude into the loose connective-tissues those serious elements, which are promptly resorbed by the lymphatics.

It has been a question, yet in dispute, whether bone shafts are penetrated by the lymphatics or not. It does not appear that they ever have been injected. Possibly the finer lymph vessels may penetrate the highly vascular, spongy head, or epiphyseal end of the shaft of young subjects. The calcified, eburnated cortex of the adult is certainly devoid of them.

The circulation of the blood in the osseous structures in many particulars is widely different from that in the overlying structures.

It also presents different features in various bones; as of the skull, the maxillary arches, and the sesamoid bones. In different epochs of life, the vascularity in these structures undergo the most radical changes. The example, before the stage of ossification of the epiphyses, the cancellous ends and the diaphyses are supplied from independent sources. The latter nourished mainly by vessels which enter the cortex through the thick vascular periosteum, by way of the lacunae of Howship and their own nutrient arteries. In other words, the supply is circumferential and direct, through circular and transverse currents. At this stage of life, the medullary membrane is thick and closely adherent and the bone-marrow is of a deep red color. After epiphyseal consolidation the course of the blood-current is changed.

Now, while the periosteum continues to still supply the surface lamellae, the deeper bone pyramids and ledges of the diaphysis are provided by a new set of vessels, approaching longitudinally in opposite directions, passing directly across the epiphysed in parallel paths from either end. As age advances, the hardening process becomes more pronounced; the bone marrow takes on a yellowish tinge and the myeloplaxes are found loaded with oil glo-

bules. Degeneration, or senile changes have begun, and central vitality is diminished; under which circumstances, we know, in any tissue of the body the resistance to pathological changes is weakened. With this advancing condensation of bone structure in various parts of the body, the most obvious changes in structure and function are noticed. The elastic, resilient cancellous substance in various situations gradually vanishes, whole systems of vessels, as the diplocic in the skull, are obliterated; in consequence of which the scalp atrophies, the root-sheaths of the hair are starved, pigmentation ceases and the hair begins to lose its color and falls out in those areas furthest separated from an accessory vascular supply. With the shrinkage of bone tissue, the canalized tortuous passages, like those which traverse the root-bed of the teeth, close in on the vessels; when decay, death and falling of the teeth occur. Nay! the gums, sharing in the atrophic changes, falling away from the crowns, may leave the teeth without support. The jaw changes its form and, toothless, once more reverts back to the outline of the infant's.

These changes, too, are not without their influence on the long, tortuous, osseous aural-canal, and hence, why deafness is so general and beyond relief in the aged.

It may be well then, not to overlook the importance of guarding, carefully, the osseous elements in amputations against irritants; for of all the tissues, though the most compact and resistant, bone is the most sensitive. A handsome stump should not be the aim of the operator, but a useful one.

Ambrose Pare conferred one of the greater blessings on mankind when he discarded the boiling oils and red-hot irons as hemostatics in amputations, and substituted therefor the ligation of the arteries; not because the latter provided greater security against hemorrhage, but for the reason that there was less ultimate local necrosis of bone and more useful stumps in consequence.

A NEW AND IMPORTANT CHOLERA MIXTURE.—THE RESULT OF BACTERIOLOGICAL STUDY APPLIED TO THERAPEUTICS.

A Pharmaceutical Product of Interest to very Progressive Physician
and Surgeon.

BY EDWARD C. MANN, M. D.,
NEW YORK.

A cholera mixture, based upon chemic antagonism to the cholera bacillus, or spirillum, is presented to the medical profession, for the first time, by one of the oldest New York druggists, George W. Busteed, who was the originator of the well-known "Sun Cholera Mixture," which saved thousands of lives in the great epidemic of 1849. The formula was presented to, and published by, the New York Sun. Mr. Busteed now presents to the medical profession a pharmaceutical product based on the facts of bacteriology and on the antagonism of the remedy to all the micro-organisms which, like the comma bacillus, or spirillum of cholera, invade and cause disease in the whole gastro-intestinal tract.

The gastro-intestinal troubles of infancy and childhood, evinced by cholera infantum and diarrhea, as well as those of adult age, are alike quickly and efficiently cured, and the medical profession have only to follow the lead of such men as the late Dr. Willard Parker, Dr. Cheeseman and Dr. Vachie, Health Warden of the city and Port of New York, who in 1849, after a careful examination and trial of the "Sun" Cholera Mixture, adopted it into all the uptown hospitals in New York, and give "The Improved Sun Cholera Mixture" a trial, and they will, as progressive men, be pleased with the quick results obtained clinically at the bedside of the patients. Diseases consist of a perversion of the functions of the structures of the body, and no disease strikes so quickly at vitality and life as those which interfere with digestion and assimilation. Every physician who keeps pace with modern methods has discarded the old and ineffective methods of coping with disease in favor

of a treatment based on bacteriologic study of disease. We know that the causative agent of cholera is a spirillum, and the "Improved Sun Cholera Mixture," the formula of which has been given so many times that even medical students are familiar with it, cures the disease by killing the pathogenic organism. The improvement over the old cholera mixture and over any and all diarrheal cholera mixtures is the result of the bacteriological study of Koch, Hankin, Haffkine, Metchnikoff and Roux, being applied to therapeutics in my laboratory, resulting in the important discovery by myself of the fact that in the oil of Ceylon cinnamon we have the most important means of destroying the existence of balls of spirilla. In India, cholera can be combated by the disinfection of the water supply at its source by permanganate of potash; and cholera ceases at once in the areas supplied by that source. Water can also be made germ free by boiling. Some natural waters are comparatively germ free, as was shown by Domann in an exhaustive paper on the pathology and prevention of cholera, published some years ago in the 'Brooklyn Eagle,' with the object of inducing the people to observe strict hygienic rules in the care of their dwellings at a time when cholera seemed likely to appear here at any time. Haffkine's magnificent work in India during the last three years has shown that previous inoculations with attenuated cultures insures a fair degree of protection against Asiatic cholera in India; a complete second inoculation seems necessary to absolutely prevent both cases of cholera and death from it in endemic areas. In India these endemic areas are known. In

America cholera is incident and an accident, and it can be suppressed at once, if infected vessels are disinfected by live steam and all suspects are held at quarantine long enough to show that there is no fear of their coming into our cities. The vessel itself should be emptied of all passengers and disinfected with live steam, after which there is no danger in her coming to her landing. The passengers in a ship that has cholera on board must, in the interests of science and preventive medicine, be detained long enough to separate the sick from the well, and see that no new cases appear, and all water supply on board a ship coming from an infected port should be boiled and known to be so treated by a special health officer, who, in time of epidemic, should be obliged to accompany the vessel as additional to the ship's surgeon, and he should exercise an authority which should be delegated to him by governmental authority in the interests of preventive medicine; and if a sulphuric acid lemonade, as set forth by Dommann in his article in the "Brooklyn Eagle," be served out daily to all steerage passengers, no cholera could appear, as that has also the power of destroying every pathogenic organism in the gastro-intestinal tract.

All importation of rags from Asia must stop from now on, and when a Congress can be found which has time to consider the lives and health of the citizens of the United States, and be in their places, instead of at the Departments seeking patronage or in Courts trying lawsuits, and when the American people can be represented by such a President as the son of Abraham Lincoln would make instead of being stifled by machine politicians with methods of known fraud capacity, then, perhaps, we can get a National Board of Health whose president shall be a Cabinet officer and whose functions shall be the stamping out of all preventable disease. Then food stuffs will cease to be adulterated; milk will cease to carry tuberculosis; ice will cease to breed typhoid; air will not be contaminated by deleterious gases; scarlet fever and diphtheria will not kill little children, conveyed to them by dirty school books passed down from grade to grade until they are too filthy to touch, and that in a city like Brooklyn, while the city Board of Education is under the political rule of men who are too busy in looting the treasury to have time to think of the prevention of contagious diseases.

2184 Fifth Avenue, New York.





Editorial

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PROFESSIONAL SECRETS.

The medical profession throughout the world has been deeply interested in the trial of the celebrated Dr. Playfair, of England, for defamation of the character of one of his lady patients.

The case, as we read it in the secular press, reveals some delicate points of professional justice; the more so because the patient was a relative by marriage of Dr. Playfair.

In short, the case appears as follows: Mr. Arthur Kitson, brother of Mrs. Playfair, was supposed to have been in Australia for eighteen months previous to a miscarriage (as Dr. Playfair diagnosed it) which Mrs. Kitson suffered, she being in England during the time. Dr. Playfair tried to get Mrs. Kitson to explain that her husband had been in England secretly three months previously. This she would not state because she was under oath not to betray the whereabouts of her husband. Dr. Playfair told his wife, who in turn told another brother, and Mrs. Kitson's allowance from an estate was cut off. Mrs. Kitson sued Dr. Playfair, and the jury returned a verdict for \$60,000 against Dr. Playfair. Its verdict was based on the

possibility of mistaken diagnosis, and various letters between the two. But the importance of this case to the medical profession is obvious. Have we any right to betray the secrets of the sick room? Assuredly not! A physician is called to perform a piece of work (mechanically speaking). No matter whether the patient is a member of his own family or a stranger, he is the medium through which the sufferer hopes to successfully battle with disease. The question of how that disease came, so far as its moral side is concerned, does not concern him. The criminal side of the question beyond the causes of the disease is none of his affairs. He has no right to reveal immorality inferred from the condition he is called to treat, whether such condition proves conclusive as evidence of guilt. In the above case Dr. Playfair stated that he would accept no opinion of other medical men as to mistaken diagnosis, as no other could have seen the case under the conditions he did. We do not think that even this statement should, in like circumstances, warrant a physician in revealing his professional secrets even to his own wife.

JOURNAL OF THE A. M. A.

Dr. John B. Hamilton, the editor of the Journal of the American Medical Association, has demonstrated that he not only is an editorial writer who can say the right thing in the right place, but also that he is a business man in a business position, where business methods can be brought into play and produce business results.

Medical Sentinel, March, '96.

To all of which we say, Amen!

And more, for Hamilton is a gentleman of high scholarly attainments and the right man in the right place, who wields a trenchant and fearless pen, when anything arises which in-

volves the interests of the American profession. This was conspicuous in the late audacious piratical usurpation of the rights of medical practitioners in New York, in the infamous, wholesale hospital grab by the three medical colleges, and in many other similar circumstances the same sterling qualities have made their impress in the editorial pages of what he has placed at the very summit of American journalism. May it be the good fortune of our trustees to secure his continuous service until he has planted the "Journal" on an impregnable and enduring foundation.

THE SETTLERS' CONVENTION.

The convention of Northern and foreign-born settlers that is to assemble in Southern Pines, N. C., May 5, 1896, will no doubt be the most important meeting for the Southern States that has ever gathered within their borders.

The settlers are gathering together as a body to say to the outside world that the enjoyment of life and liberty is just as safe in the South as in any part of the United States; that the native Southerners are kind and hospitable to all honest, upright and law-abiding people who come in and settle among them and that the opportunities to secure homes and farms and for profitable investment of capital are superior to any section or clime.

The declaration of this convention will mean a great deal for the South, more than now appears. Those who have been considering the question of locating in the South will eagerly watch for the sayings of this meeting, and the declarations of the delegates assembled will once and for all put the stamp of falsehood upon the assertion that is constantly made, that the "shot gun policy" reigns supreme in the South, and that mob and lynch law holds full sway.

The settlers have arranged for the convention and they have placed the

preliminary work in the hands of a committee of settlers and they have elected as their corresponding secretary, Mr. John T. Patrick, who was for ten years in charge of the Immigration Department of North Carolina, and who has no doubt brought more men and money to the South than any other one man.

The holding of the convention the first week in May is an opportune time. The South will show off to the best advantage. The weather will be pleasant, the foliage will be full, the flowers in bloom, and the field crops will be nicely growing. While the weather will be warm in May, it will not be oppressively hot.

In 1886, under the auspices of Northern settlers with the assistance of Mr. Patrick, there was a North Carolina settlers' convention held in Raleigh, N. C., and it proved to be the best thing North Carolina has had done for her. Several hundred people came from their Northern homes to hear what the settlers had to say, and among the Northern visitors were fifty odd representatives of prominent newspapers, and they published to the world thousands of columns of complimentary articles concerning what the settlers had to say of their adopted homes. There were several hundred settlers present at

the North Carolina State Convention, and the indications are that at the Southern States Convention there will be a very large crowd present from all parts of the South, for no section can afford to miss the opportunity of being represented.

The convention as a whole will no doubt pass resolutions and each State's delegates will set forth briefly the advantages of their respective States. Each State will have a certain time assigned it for remarks from the Governors of the States, prominent officials and settlers. A number of the Governors of the States have already signified their intention of being present, and all have promised to be present or send one of the State officials to represent their State. The Governor of each State has already appointed Northern and foreign-born settlers to go to the convention, and the Boards of Trade and Chambers of Commerce and Mayors of cities and towns are also naming representatives so that their sections and places may be represented and get the benefit that is sure to come from this important gathering. Very low rates are to be given by all Northern railroads. Roads South appreciate the benefit that is to come out of this gathering, and they propose to encourage the people to attend.

All settlers who can and will attend are requested to send in their names to Mr. John T. Patrick, Pinebluff, Moore County, N. C.—Southern Pines Settler.

The lowest transportation rates ever given from the North to the South are offered:

Boston by Merchants' & Miners' Steamship Line. Tickets on sale May 2d, at \$10.25 for transportation, Boston to Southern Pines and return, good till May 15th. Meals and state rooms \$4 each way.

Providence, by Merchants' & Miners' Steamship Line. Tickets on sale May 2d at \$10.25 for transportation. Providence to Southern Pines and return, good till May 15th. Meals and state rooms \$4 each way.

New York, by Old Dominion steamers. Tickets on sale May 2d at \$8. New York to Southern Pines and return, good till May 12th. Meals and state room \$3 each way.

Washington, by Norfolk & Washington steamers. Tickets on sale May 2d and 3d at \$6.50. Washington to Southern Pines and return, good for ten days.

Baltimore, by Bay Line. Tickets on sale May 2d and 4th at \$6. Baltimore to Southern Pines and return, good for ten days.

Tickets can be bought on above-named dates at ticket offices of the steamship lines mentioned or of Purser on board steamer.

Portsmouth, by Seaboard Air Line. Tickets on sale May 3d and 4th at \$3. Portsmouth to Southern Pines and return, good until the 14th.

Atlanta, by Seaboard Air Line. Tickets on sale May 3d and 4th at \$3. Atlanta to Southern Pines and return, good until the 14th.

From Southern Pines to points farther South, round trip tickets can be had at low rates between the 5th and 8th of May.





Correspondence.

RHEUMATIC RINGS.

To the Editor of "The Times and Register."—Noticing in your issue of March 14 an article styled "Wayside Notes," which struck me as "peculiar," it has occurred to me that it might be well for the author and for us to indulge (quietly) in a look through the "little end" of the professional spyglass.

We will let the "vita-pathy" pass for the present, though there are thousands of well-authenticated cases of cure by this method, which had bidden defiance for months and even years to the "greatest known skill."

Now for the "Rheumatism Ring" and the "common herd" business.

Is it to be supposed that a man "brainy" as Chauncey Depew would be willing to publish himself as having been so greatly benefited by a "rheumatism ring" if such had not seemed to him to have been the truth?

Is it reasonable to think that men like Messrs. Blankenburg, Betz, Cable, Doble and Forepaugh, with their experiences varying from "sometime ago" to "fifteen years," would all unite in stating that which was not so?

And does it not seem a little presumptuous to intimate that such men as these are to be classed by "the moralist of a hundred or two years hence" as willing worshipers of the lie in medicine?

Some two years ago I was attacked with rheumatism in my back and legs, rendering me almost helpless and seriously interfering with my supervision of a building operation I was then commencing. After suffering for three or four weeks, during which time I had been dosed with the consecutive reliances of

1894 scientific medication, from colchicum to salicylate of soda, I was sustained by the hope expressed that it would "run its course" in two or three weeks more. Just at this juncture I was fortunate enough to excite the gratitude of a patient (a very intelligent lady (?), who had experienced, as she thought, the benefits of a rheumatism ring. She kindly presented me with one, which I politely placed upon my finger. In twenty-four hours I was better. In forty-eight hours I could walk with comfort. In four days my rheumatism had "run its course;" and since that time I have been more comfortable, muscularly, than I had been for twenty years before.

As I skipped through the main hall of our college building, and told my experience to Professor Laplace, he asked me, most earnestly, "How can you have faith in such nonsense?"

What reason had I for faith in the colchicum-salicylate of soda nonsense?" Why should I have waited the two or three weeks for the "run its course" nonsense? And why is that which seems to relieve any more "nonsense" than that which positively does not? These are the questions to which it behooves the scientific, ever-changing, utterly unstable practice of medicine to give a satisfactory answer.

It is not sufficient for it to say of the things so severely criticised that they are foolish, or that they are nonsensical, much less that they are "frauds," for there is no argument in such assertions.

Not only must some explanation be given which will show why these "empirical notions" do not make the cures they are said to make; but it

must also be shown that certain medicines will cure the things they do not cure, and thus are entitled to be called wise, sensible and scientific.

The day is passing when the taking of temperature, the noting of the pulse and the occasional giving of a teaspoonful of beef tea will be accepted as "scientific" treatment for pneumonia; while the bacteriological aseptics, on the part of those, and for those, who "between times" travel in cars, eat of hospital or restaurant cuisine, dress in ready-made clothes and live the life of ordinary individuals, is already beginning to be viewed as your "Wayside" contributor views "vita-pathy" and "rheumatism rings."

Why have not the friends of those who die from pneumonia at the hands of our "most skillful physicians," or the recipients of positive benefit from so-called "lies" in place of decided failure at the hands of so-called "truth," the tangible right to regard the 1896 practice of medicine as a very badly-worked-up fabric, and the equal right to tell of what they have experienced from so-called "irregular" and "empirical" sources without incurring the possibility of being commented upon in

the pages of a scientific medical journal as imbeciles of a grade only to be viewed unfavorably, even in contrast with the rest of their fellow-men, who, in turn, are grouped as "the common herd?"

—J. Foster Flagg, D. D. S.

(We might ask the doctor why it is that colchicum and the salicylates are given in rheumatism? Is it not because they are the most positive medications known? That is to say, they actually help, or cure the greatest number of rheumatic cases. As to his rheumatic ring; can the Doctor explain what force there is that causes beneficial results? Is it more than hypnotic suggestion, or a like fad? Will it cure more cases than the salicylates? Would he be satisfied with it in acute articular rheumatism with a temperature of 103 degrees? It is well known that a silk shirt is a preventive for recurrent attacks of rheumatism, yet we would not like to class it with the doctor's ring. We appreciate the underlying principle of the doctor's letter, and must admit that there is too much routine in practical medicine, but we are not quite willing to give ourselves over to blind confidence in semi-scientific therapeutic measures. —Ed.)

WAYSIDE NOTES

By Ernest B. Sangree, M. D., Philadelphia.

The Bible refers tenderly to the one who "was a stranger, and ye took Me in;" but so far as my reading goes, makes no allusion to the staid inhabitant who is now and then incontinently "taken in" by the peripatetic stranger. The other evening a physically reliable looking youngish man called at my office, and, gently sliding from his pocket a pasteboard box, unloaded it, set up the apparatus, at the same time accompanying these movements with an easy conversational style of explanation. It was a new method of urine examination for sugar. A

certain amount of blue liquid was put in a test tube; one drop after another of urine was allowed to mingle with the liquid under certain precautions, and if the test substance became clear by the time the tenth drop was added sugar was present, and an accompanying table showed what percentage. "Beautiful," thought I. "When now I wish to estimate the sugar I must needs go to the groceryman for a cake of yeast, mix it with the urine, coax the mixture into the bent tube of my saccharimeter and wait 24 hours for it to ferment. Here it is all

done in 10 minutes or less." I handed him a certain consideration, for which he agreed to leave one of the boxes with me.

The next day the opportunity occurred. Upon examining a specimen with the usual bismuth test the presence of sugar was shown. Then I tried the picric acid test; again sugar. "Now," I thought, "sugar is evidently here, but I do not know how much. I'll just easily estimate the percentage by means of the neat little apparatus that the man from New York left with me." One minim I put in; two, three, four; it was still blue. From four on up to

ten I continued carefully dropping, boiling and examining. But at the end of the tenth drop there was still a decided cerulean tint. As the accompanying pamphlet says that if ten minims do not clear the solution no sugar is present, and as I happened to know that sugar was present, I merely repacked my new toy, sadly retired it to an inconspicuous position in the back of a deep case and invested two pennies in a little cake of yeast at the earliest opportunity. If the gentleman from New York will call again he may have mine back for half-price and no questions asked.

WHAT IS SAID OF THE NEW PLAN?"

Editor "Times and Register."—The question has been asked me, "What approval or criticism has been expressed by the medical profession relative to your suggested plan of medical and biological science?"

In reply to the foregoing inquiry I will state that the medical mind has been made more or less familiar with the alleged different codes of operative fundamental principles, as represented in several medical journals and other publications; thus it may be of interest—even to those readers who have not cared to ask questions—to learn what kind of a reception such doctrinal plan has received. And while I have no fault to find with the criticisms expressed in the sharp thrusts and sallies of wit at my expense, directed to the "alleged would-be scientific knight in his tilt against the theories and established facts of biologic science."

As a whole, however, the pen of the critics has been less severe than would be reasonable to anticipate under the circumstances. The following statement represents the situation of the more candid and reflective mind. "It is my belief that you are on the right track, but just how such doctrines can be made to become practical—how they can be made useful, in guiding the treat-

ment of disease I fail to comprehend. Yet, while I think there is some scientific merit in the theories you present, I do not consider myself competent to defend them, much less have I the ability to become a pioneer for their advancement. 'Theory' is in such poor repute in association with medical practice that I fear you will not be able to enlist the attention of the medical profession to any great extent during this generation."

It is doubtless true that many practitioners fail to see the utility of an idea independent of a previous historic record of experiment. But medical science occupies a higher position with phenomena than a record of its appearance; and there is a scientific knowledge to be acquired not to be derived from experimental proceedings.

There is something of great scientific value in a correct theory, and there is much to learn from such source; while there is no more to fear from an intelligent critic in this new departure than from the intelligent critic who makes examination of the modern interpretation of astronomical science as compared with the ancient. Theory is merely a department of thought exercise which attempts to explain facts; a function that may sooner or later be accredited with respectability. The

inquiring mind is fast learning that bedside experience and practical facts fail to meet the total requirements of scientific progress. There is a higher function for intelligence than recording facts; there is something to be reasoned out—some special exercise for the mind of exceeding value, implied in the comprehension of law and method, of operative proceedings.

The present accepted operative principles of medical science are purely imaginary; consequently, very much of the presumed wisdom contributed in a clinical report of medicinal appliance has as little scientific value as would a clinical report based on the experiment frequently tried by the American Indians of the Northwest, who resorted to the practice of making a great noise to drive away the monster that was presumed to be devouring the moon in the event of an eclipse. This practice was always attended with success, while the Indian failed to recognize that the operative principle had no connecting sequence with the methods employed.

Scientific problems are as much theoretical mind problems as fact problems, and the phenomena that presents health and disease requires explanation—which in other words is another name for theory. That may represent Nature's modus operandi of operative proceedings. Astronomical theory is in excellent repute, because it explains facts correctly; while medical theories are disreputable, simply because, thus far, they have failed to contribute reliable information.

In the meantime, however, while the medical profession largely ignore new theories, they are persistent in perpetuating the most absurd and dangerous theories that ever got mixed up with practical science, viz., the doctrines of "active cause of disease" and "active medical principles." From a different source there is contributed the following: "I don't see anything to the subject whatever, except affording a pastime for the indulgence of visionary fancies, of no interest or advantage to the practical medical mind."

What is called the "practical mind," in most instances, is the experimental mind, that takes little or no interest in the nature of the operative proceedings which develop the facts, so well illustrated in the experiments made by the Indians of the Northwest. The key to the situation of medical science problems is found in the fact as to what is and what is not the plan and function of voluntary and involuntary vital force agency in the affairs of the universe; or, in other words, what constitutes the Divine method in the exercise of that special agency of human life function. When the functional distinctions of the four alleged special active vital properties are recognized there will be no occasion for the use of the language, "active cause of disease" and "active medical principles." And the ideas which have long been associated in connection with such phraseology will cease to inspire expectancy of fulfillment. An entirely different phraseology and idea will come into use, in explanation of facts presented in accordance with the operative and co-operative methods, of distinct ultimate human life activities. Nature will be then recognized as authority, with little or no confidence in that human testimony as given interpretation by the ancient mind and perpetuated to this generation, which has sought to explain the modus operandi of nature in the field of biologic science—a department of alleged science that will soon cease to be thus taught in the schools of medicine and disease.

There is to be a revolution in medical teachings, although such event may be postponed for a period, as was the astronomical revolution; but human authority cannot always prevent a recognition of nature's life forces as presented by the human organism in health and disease.

Thus the doctrines and associate ideas of "active cause of disease" and "active medical principles" are as sure to pass into ignominious history as did the ancient doctrines of astronomical science.

The modern mind is fast accepting that with the study of a natural

science the function of that special force or operative agency which executes the phenomena of that particular department necessarily becomes a subject for research and investigation; not only to learn its method of action without man's intervention, but how it may be harnessed and utilized in the most advantageous manner. Therefore, when the mind accepts the fact that the vital force agency is the only operative agency that presents the conditions called health and disease, and also that executes the operations resulting from medicinal relations, it will cease to be an odious and visionary speculation to engage in the study of the vital force function.

Now, while it has ever been true that the vital force function is the only operative agency in medical science, please consider, even for a moment, what is said of this department of nature's forces by one of the acknowledged leaders in education.

Says Henry Mandsley, M. D., F. R. G. P.: "It is easy to perceive how impossible it is in the present state of science to come to any positive conclusion in regard to the nature of vital force; this generation and generations to come will have passed to their everlasting rest before a discovery of the secret of vital activity is made."

Permit me to state that such discovery has already been made, and it is a department as easy of comprehension as arithmetic. The only obstacle in the way of a complete and verified comprehension exists in the previous acceptance emanating from dignified authority, which declares it disreputable to a well-balanced intellect to engage in such visionary and profitless speculation.

It should be kept in mind, however, that it is not possible to make much progress in medical science until the student of medicine and disease is possessed of sufficient courage to engage in original research relative to the *modus operandi* of the function of vital force.

So far as I know there is no literature on this subject except what

has been contributed by myself, which is not arranged suitably for textbooks, but presented in disconnected form to illustrate the instability of existing theoretical medical science, and the possibility of making successful raids through the entire field of unprotected medical doctrines of acceptance. The present theoretical medical doctrines are as crude, unscientific, and as far removed from fact as was the ancient doctrine of a flat earth, and the Ptolemaic plan of astronomy; having no better support than what is contributed from the strength of a long period of common consent, based on the personal assurance of each generation coming down from remote ages. Whenever the scholastic mind recognizes the importance of such knowledge it will then be required that this department be presented in textbook form, in as precise elementary method as is provided for the study of mathematics. There is no branch of natural science which requires more exactness, in special application of correctly-defined terms, and fixed associate ideas of practical relation to represent the situation than the department of medical science, whose phraseology now admits of such flexibility as to mean most everything desired, and even nothing when emergencies arise. In fact the lexicons to which we refer are seriously misleading.

It is not lack of ability that occasions this department to remain in obscurity, but neglect to recognize the practical utility of special operative life principles in aid of recovery from disease.

Says Dr. Brown-Sequard: "Physicians—unfortunately I speak of myself as well as others—are biased. This bias prevents progress. They have received an education which has given them certain notions, and those notions prevent a free examination of certain questions."

Thus with this department, executed by the special functions of different life principles, there may be as much hesitation with investigation as prevailed with the depart-

ment of modern astronomical research; even as great reluctance to surrender the old doctrines and develop expectancies of a more scientific interpretation. But the great practical problem still remains to be determined: Do the people—does the medical profession—of this generation wish to engage in the study of vital force functions? Is it desired that this subject be considered during this generation? Or, shall the profession continue to abide by the expressed judgment of accepted leaders, who state that the medical mind of this age is too diminutive, and not equal to the occasion; and hence must be content for the present, at least, with those doctrines which have long been satisfactory and beautiful to contemplate, about which there is a recorded confession of total ignorance.

Should the foregoing language seem unjust in its application to the situation of medical science doctrines, "the gentle critics who turns down the last page," as well as others, are invited to come to the rescue, and show cause distinct from historic record of satisfaction why the doctrinal infliction thrust upon this generation in the name of medical science should continue to be perpetuated.

It will be apparent to every thoughtful mind when that unmis-

takable event is recognized, that the voluntary human organism is set into activity in response to the will; while the involuntary, which presents the conditions called health and disease, is set into activity in response to sensations both normal and abnormal, together with the fact that sensations are produced by material contacts with the nerves. Consequently no occasion can exist for accrediting the cause of disease and material medicine with "active principles."

Such representation is but the expression of an idea evolved in the dark ages, before the star of science had arisen; for neither the cause of disease nor material medicine can be said to act, but such presence causes special sensations, in response to which the vital force agency acts, presenting all that phenomena executed by an "active principle." The present medical mind, like the ancient astronomical, will be required to surrender many ideas, so long satisfactory, and make original research for a development of thought more in harmony with the plan and methods of nature.

Such a revolution must certainly take place before this department of erudition can be truly said to be teaching the correct nature of disease and medical science.

—W. R. DUNHAM, M.D., Keene, N.H.

Book Reviews.

COCA AND ITS THERAPEUTIC APPLICATION. By Angelo Mariani, with illustrations. Published by J. N. Jaros, 52 West Fifteenth street, New York.

This little volume, containing much valuable information regarding erythroxyton coca, is divided into five parts:

1. The botanical character of coca; its culture and mode of gathering.

2. Its history, properties and uses.

3. Physiological researches regarding coca, and a special chapter on cocaine.

4. Its therapeutic application.

5. General conclusions and explanations regarding the Mariani preparations.

It would pay our readers to obtain a copy of this instructive little volume.

THE INTERNATIONAL MEDICAL ANNUAL, 1896: A work of reference for medical practitioners. E. B. Treat, 5 Cooper Union, New York Pub. Price, \$2.75.

This is the fourteenth yearly issue of the Annual, and in the main is a very complete work. There are many excellent features which will commend it to most medical men; notably that of a complete resume of the new Roentgen cathode ray discovery to date, admirably illustrated.

The antitoxine treatment of diphtheria is handled very fairly, both sides of the question being presented.

We see no mention of the lymphatic stasis theory of pulmonary phthisis as prerequisite to the favorable lodgment of the tubercle bacillus, which was brought out the early part of 1895.

We note on page 614 that Dr. de

la Granja has appropriated under his own name a description of an operation for total hysterectomy by a new method, which rightly belongs to Dr. A. H. Tuttle, of Cambridge. It is a pity that so important and unique an operation should have been republished with its most important steps left out. There is no mention of the screw stem or cup with the T-shaped slots, which is so important in the operation, as elaborated by its originator in the "Annals of Gynecology and Pediatrics;" while, as to credit, the author has been exceedingly generous to his own hospital and ignores Dr. Tuttle, to whom he should be indebted for the copy of most of the text.

But the "Annual" will be an excellent reference to the major advances of the past year in medicine, and its cheap price and elegant typography will enhance its value to the general practitioner.



FORCING PLANTS BY ELECTRICITY.

Ithaca, N. Y., April 3.—The professors in the Department of Horticulture at Cornell have just concluded important experiments in developing plants by electric light. Professor Bailey said:

"We are highly gratified with the result. We have proved that by using electric light during the daytime we can produce lilies fully two weeks before those that are grown under

natural conditions. The effect is fully as marked in the case of lettuce, but we found that electricity is a positive detriment to peas.

"We will still continue our investigation on different plants, and will ascertain the effects on vegetation of the Roentgen rays. We shall also experiment on plants by electrifying the atmosphere in which they are grown."

ELECTRICITY AND THE PRO-
CESSES OF LIFE.

1

The relation between electricity and those hidden processes of cell activity whose outward manifestations we recognize as the signs of life has always been a matter of the greatest interest, says the London Hospital. Unfortunately, its investigation has also been a matter of the greatest difficulty. Experiments which have been made, however, upon freely floating organisms are very suggestive. According to Dr. Augustus Waller, * if a galvanic current be passed through a bath containing paramecia in sufficient abundance, a curious sight is observed. When contact is made the whole crowd of paramecia fall into order with their noses toward the cathode, and begin to swim toward it in converging curves; while if the current be reversed the crowd breaks up, all its units turn round and begin to swim away, as if of one mind, from the new anode to the new cathode; clearly these creatures are more "comfortable," if one may use the term, when swimming with the electric current than the reverse way. This, however, is not a general law for all micro-organisms, for some tend to swim against the current, and others again to place themselves at right angles to it. In a galvanic bath containing a mixture of ciliated and flagellated protozoa while no current is passing these creatures swim about in all directions in a perfectly indifferent manner, but directly contact is made they divide themselves into two distinct armies, so to speak, which assemble on the two banks; "ciliata to the cathode, flagellata to the anode, seems to have been their mot d'ordre," and on reversing the current they immediately change places.

In regard to more complex free-floating organisms the same is found to be true. Much as cats are more comfortable when stroked the right way than the wrong, and, in fact, will often get up and move away when stroked from tail to head, so

it would seem that tadpoles dislike being "stroked" the wrong way of electricity. An experiment is described by Dr. Waller. In a lantern bath were a number of fresh tadpoles, moving more or less leisurely and jostling each other in all directions. On sending through it a current of electricity, he says, "the commotion is amazing; the tadpole community seems to have gone mad; a writhing mass is all that can be distinguished; but the disturbance does not take long to subside, and now all the tadpoles are fixed as if at attention, heads to anode, viz., traversed by a current from head to tail, stroked down the right way."

It can also be shown that if the current is turned on very cautiously to a degree short of making the tadpoles face about, those which happen to be lying in such a direction that it passes through them from head to tail lie perfectly still, while those which lie the other way wag their tails; clearly the whole organism reacts differently according as the current goes in one direction or the other. If two tadpoles happen to be lying in the bath in opposite directions, by cautiously reversing the current the tadpoles may be made alternately one or the other to wag their tails. Of course, in such complex creatures as tadpoles this reaction is not due to the effect of electricity upon individual cells, but depends on the presence of the spinal cord, as may be shown by experiment, for a piece of a tail long enough to contain a bit of spinal cord will tremble when the current is turned on, while a shorter piece is not affected.

These experiments are then sufficient to suggest that to be bathed in galvanic current may be by no means so immaterial to the proper functionization of the body as some people have imagined. If freely moving organisms are so affected as to swing round in response to the current, it is hard to believe that those embedded cells which cannot swing are any the less affected, and

*Science Progress, October, 1895.

it is open to us to believe that they will perform their functions all the less perfectly from their inability to conform to their new surroundings. In relation to this, it is not without interest to bear in mind the assertions continually made by many people as to the distressing effect

upon them of what is termed thundery weather, when the relation between the atmospheric and the earth potential is reversed, and when, therefore, the direction of the current discharging through our bodies is normal.

Current Medical Literature.

MYRRH IN THE TREATMENT OF DIPHTHERIA.

Miloslawski (*Medicinskoe Obosreniji*, 1895, No. 15; *Deutsche Medizinische Zeitung*, January 27, 1896; *New York Med. Jour.*), reports extraordinarily favorable results from the treatment of diphtheria with myrrh. From December, 1894, to February 15, 1895, in a village of the Government Saratow, he says, forty-two cases of diphtheria were treated with the tincture of myrrh; twelve of them were severe, twenty were of medium severity, and ten were light. The patients' ages ranged from one to twenty-three years, but the majority were between ten and 15 years old. Three died; one of them was a year old, and two of them were three years old. All patients were under the physician's direct observation. The treatment was carried out in the following manner: The preparation given internally consisted of:

Tincture of myrrh....	4 parts
Glycerine	8 parts
Distilled water	200 parts

A teaspoonful of this mixture was given every hour to children under 2 years old, a dessertspoonful every hour to children from 3 to 10 years old, and a tablespoonful every two hours to adults. In the case of children with whom the procedure was practicable, the pharynx was painted with tincture of myrrh four or five times, in addition; in that of adults

gargling with the tincture was employed. Under this treatment the diphtheritic membrane began to be detached as early as on the second or third day, the temperature fell, and the general condition speedily improved. The average duration of the treatment was from six to eight days.

As regards the theory of the action of myrrh in diphtheria, it is assumed by some that it destroys the toxins and ptomaines which form in the affected parts and thence gain entrance to the blood; but the author calls to mind a statement of Binz's to the effect that 70 drops of tincture of myrrh would increase the number of white blood corpuscles fourfold, and so fortify the organism in its contest with the poison.

—Med. Review.

HYDROZONE IN PURULENT OTITIS MEDIA.

A Report of a Case Supposed to Involve Inflammation of the Mastoid.

—By WILLIAM CLARENCE BOTTLER, M. D., of Kansas City, Mo.

On November 4, 1895, I was consulted at my office by Robert P—, aged 24 years; occupation, laborer in the Armour Packing Company. The patient complained that for about four weeks he had been suffering from intense pain in his left ear, making it impossible for him to sleep

at night, or rest during the day. The pain was so severe that at times he apparently lost consciousness, and it seemed to extend through his entire brain. Upon inspection the man's face was found terribly deformed; an edematous swelling the size of one-half of an ordinary loaf of baker's bread occupied the usual location of the ear and the surrounding muscles. The auricle of the ear was almost buried in edematous tissue; upon palpation the part was found intensely tender, and deep pressure evoked expressions of excruciating pain. The integument and subcutaneous tissue were thoroughly infiltrated. Inchorous, fetid pus was slowly exuding from an almost imperceptible meatus. The patient expressed feelings of chilliness, showing a possible septic contamination of his system. Every indication and sign pointed to possible suppuration of the mastoid cells—tenderness upon pressure over the mastoid being very marked. Efforts to localize the tenderness, whether in external meatus or mastoid, for discriminating diagnosis were unsatisfactory. I concluded to withhold a positive diagnosis as to whether the condition was purulent otitis media or suppurative inflammation of the mastoid, and used tentative treatment for a short while. I immediately placed the patient under heroic doses of elixir of the six iodides internally. After laborious effort I succeeded in separating the edematous tissue sufficient to admit the introduction of a small Eustachian catheter into the external meatus. Through this, with a small hard rubber syringe, I injected four times daily about one-half an ounce of hydrozone, allowing it later to drain away, advising hot fomentations. The patient was confined to his bed and the best possible hygienic surroundings provided. In twenty-four hours after the treatment was commenced the intensity of the odor, amount and character of the discharge had manifestly lessened, the swelling was reducing and the patient feeling better. The edema being lessened, the aperture

was enlarged. I now recommended the injection of hydrozone through a catheter of larger calibre, every hour, requiring the head to be kept turned to the opposite side for ten minutes to allow the percolation of the hydrozone as deeply as possible into the middle ear before reversing the position to allow drainage. We continued this treatment for a week, the man's recovery progressing with remarkable rapidity, his pain and the constitutional symptoms having disappeared about the third day. At the end of eight days the swelling had entirely disappeared, his features were again normal, and he expressed himself as perfectly well. An examination showed a circular perforation in the ear drum the size of a shot, proving that the case had been one of purulent otitis media, with septic contamination of the patient's system, and infiltration of the surrounding cutaneous tissues. Small incisions were made at two different places to permit the exit of pus from the integument. The mastoid was found not involved. The rapidity with which the disease yielded after the introduction of hydrozone through the catheter into the middle ear impressed me with the wonderful value of the preparation; for, struggling with such cases during a practice of seventeen years, I have never seen its efficiency equaled by any medicinal or operative procedures.

—Medical Bulletin.

TUBERCULOSIS IN MAN AND ANIMALS.

At the Intercolonial Medical Congress, which met at Dunedin, Australia, last month, an interesting discussion was started by Professor Watson, of Adelaide, on "Tuberculosis in Man and Animals." He did not attempt to push his investigation of the subject to finality, but merely suggested certain lines of inquiry upon which he thought that the profession should work in order to combat what Lord Playfair has called "the only disease now above the horizon of our knowledge which seems to threaten the very existence

of our race." Professor Watson, in fact, pointed out that, apart from drink, hydatids and syphilis, the most formidable agency in the rapid extermination of the aboriginal races of Australia has been tuberculosis. Dr. O'Hara, of Melbourne, bitterly complained of the almost incredible carelessness shown by people who ought to know better in allowing the transmission of those strumous taints which so often lead to and develop into consumption, and he instanced a case in which a pastoralist had given him five hundred guineas for a ram, and thereby so greatly improved his flock that he was enabled to dower his daughter and marry her to a husband having such a taint. He asked significantly how people could expect the eradication of hereditary predispositions to disease when they took far more care in breeding their sheep than their children? On the general question of the spread of tuberculosis, Dr. Springthorpe remarked, as we did a few days ago, that recent discoveries give more hope of preventing the disease than of finding a specific remedy for it.

PROFESSOR KITASATO'S WORK IN TOKIO.

Dr. A. Nakagawa sends us the following interesting communication: "Serum Treatment of Diphtheria.—Dr. Kitasato has just published a detailed report of 353 cases treated at the institute with the serum prepared under his supervision. For those who have no access to the original a few brief extracts may be of some interest. Mortality: Professor Kitasato collected from reliable sources 26,521 cases of diphtheria in Japan previously to serum-therapy, with 14,996 deaths (56 per cent.); while of 353 cases treated here from November 13, 1894, to November 25, 1895, there were only 31 deaths (8.78 per cent.). There is reason to believe that the mortality can still be lowered if

the treatment could be commenced early in the course of the disease. Thus in 110 cases in which injections were made within 48 hours after the invasion all ended in recovery. On the other hand, of 33 cases treated after the eighth day of the disease 11 were lost. Some of the patients were brought into the institute in a moribund condition, and 6 children died within five hours after admission, 6 more within ten hours; altogether 21 cases (two-thirds of the total mortality) were lost within the first 24 hours.

—Lancet.

COLOR-BLINDNESS.

A Frenchman, Mons. Dubois, has made an interesting suggestion as to the origin of color-blindness. This defect of vision almost invariably consists in inability to recognize red. Now, a body cooling down from incandescence (remarks Knowledge) extends its spectrum towards the red end, or in other words, the white hot or violet-colored body becomes yellow and finally a dull red as it cools. A few stars such as Sirius are white hot, many others, like our sun, are cooler and therefore yellow, whilst others are so cooled down as to shine with a dull red light. Primitive man according to Mons. Dubois, lived when the sun was in either the Sirius or the pre-Sirius stage, that is, when the sun, which is the source of all color, white hot, and had no red component in its spectrum; he had therefore no power of recognizing red. Color-blindness, therefore, says Mons. Dubois, is merely travism or degeneration to the primitive type. The objection to this ingenious theory is that we have no reason whatever for supposing that primitive man was contemporary with a white hot sun; further, all white hot suns that we know of have some red at any rate in their spectrum. The intensity of particular components of the spectrum may vary, but the components are still there.

—Indian Lancet.

German and Italian

Translated by DR. F. E. CHANDLER.

SOME DOUBTFUL POINTS IN THE THERAPY OF DIPHTHERIA.

Professor N. Filatoff, of Moscow, says that the first point has reference to "the importance of local remedies in the treatment of diphtheria."

Some authorities reject utterly the idea of painting the tonsils, and advise the treatment with injections of serum in every case of diphtheria; others recommend the use of disinfecting but non-irritating local applications; the third class not only insists upon the energetic local application of caustics, but even admit the forcible detachment of the false membranes.

Our author treats diphtheria by injections of serum and local applications of a 1-1000 solution of corrosive sublimate; these measures facilitate the disappearance of the bacilli from the tonsils. He considers Loeffler's treatment (toluol, etc.) too irritating, and unequivocally condemns the forcible detachment of the false membranes.

As to the second question, "on the value of serotherapy," the author is unreservedly favorable, and finds that the efficacy of this treatment manifests itself especially in villages, and in unfavorable conditions generally.

Author decides by comparison the third question, "on the importance of prophylactic injection." He draws a parallel between the morbid disposition of children dwelling in a house where there is diphtheria, and where some of them have been treated by prophylactic injections and others not. From the statistics it would seem that 50 per cent. of children who are not treated catch the disease, while only 10 per cent. of the others have it.

The fourth question was upon "the deadly effects of serum in provoking albuminuria." Author considers this as undecided. He admits, however, that this effect may be caused by some peculiar individuality of the horse from which the serum was taken, or else that there was a special disposition of the child. This may even cause death. Luckily, these cases are only rare exceptions.

—Russian Archives of Pathology, etc.

ON THE EXTRACTION OF PLUGS OF CERUMEN FROM THE AUDITORY CANAL.

In the *Presse Medicale*, Dr. Laurens says: "First of all, the use of any instrument, such as forceps or stylets must be absolutely forbidden. A physician, unfamiliar with otological technique, would, in endeavoring to remove the plug with these instruments, be liable to wound the canal and cause an eruption of furuncles even when using sterilized instruments, and might rupture the tympanum and cause severe accidents, hemorrhages, deafness and vertigo.

We should confine ourselves to the use of first, a syringe with a capacity of 100 grammes that should be easily sterilizable, and fitted with three rings for convenience in handling. The " " should be quite small, regularly cylindrical or slightly conical, but not ovoid.

Finally, it would be prudent to place about 1 cm. of soft rubber tubing upon the end of the nozzle, so as to avoid wounding the canal.

We should use boiled water at 37 degrees C. for charging the syringe, and then carefully get rid of all air bubbles in the same.

How to inject! Have the patient seated, the shoulder covered with a napkin, so as to protect his garments.

The patient should hold the basin below his affected ear and tip his head to the same side. Whichever be the side to be irrigated the syringe should be manipulated with the left hand. The right hand should direct the beak of the syringe, not perpendicularly, towards the centre of the plug, but along the upper part of the canal, so that the water may pass to the side of plug, to the drum, and wash out the canal by the return force of the water. The first drops should be injected with the utmost care, and the patient must be instructed to tell of the slightest sensation of pain or dizziness. If there be no bad effects we should gradually increase the force of the injection, taking care not to cause vertigo, which is serious, even if merely transitory.

Nevertheless, if our injection has caused it, we should ask our patient to close his eyes so as not to see things moving around him.

If he is violent, give him a little ether to inhale and put him on his back by an open window, etc.

If no accident happens, we should use five or six syringes full.

What should be done in those cases where the plug does not budge? Should the force of the injections be increased? No! that may be dangerous, and for three reasons: First, this mechanical irritation may wound the canal; second, the inflammation thus produced may extend to the internal ear and cause serious trouble; third, the plug of wax may be adherent to the drum, and any violent detachment of it may cause a hemorrhage of the membrane.

We must soften the plug. The physician will order the following:

Rp.—Carbonate of Sodium 1.00
Glycerine.
Water aa. 20.00

The patient should warm ten drops of this mixture in a teaspoon and pour them into the ear, repeating this three times a day. When using the drops lie down on the well side for about ten minutes, and then keep a plug of absorbent cotton in the canal during the intervals.

One should never forget to warn

the patient that the wax may swell under this treatment and cause deafness, roaring in the ears or vertigo, but all these symptoms will disappear upon removal of the impacted cerumen.

After 48 hours fresh injections should be tried.

If the plug does not move continue treatment for two days longer. Finally, first, the plug is washed out entire or is freed, but caught in the meatus. In this case we may extract it with forceps; second, only detritus is washed out. In this case the injections should be continued until the water comes out clear.

After extraction the ear should be carefully dried out with absorbent cotton.

The after treatment consists in placing a bit of absorbent cotton in the outer portion of the external auditory meatus. The cotton should never touch the tympanum.

The reasons for the use of the cotton plug are: First, the air, especially in winter, touching the now unprotected drum, may set up an external otitis; second, the noises striking the uncovered tympanum may cause pain. As long as this auditory hyperesthesia lasts the patient should keep cotton in his ear.

—Independence Medicale.

ABLATION BY LAPAROTOMY OF A HUMAN ENDOCYMOID MONSTER.

Professor Maydl, of the Bohemian University of Prague, opened the abdominal cavity of a young man 19 years of age, student at the School of Technology, of Brunn.

This young man had had an internal tumor from his infancy.

The professor found between the spinal column and the intestines the undeveloped form of an acephaloid foetus, whose extremities were perfectly visible and covered with fat and thick hair.

Professor Maydl considers this tumor to have been a twin child, who, for some unknown reason, developed in the lower portion of its brother. The young man operated upon is out of danger.

—Progres Medicale.

FROM ITALIAN SOURCES.

We can find but little of interest in the Italian journals. The *Rivista Clinica* mentions a case of malarial fever in a young woman upon whom a total splenectomy had been performed.

Dr. B. Silva, of Pavia, has an article upon the etiology of malaria.

After having outlined the symptoms and varieties of the disease the author gives the causes.

The true cause is the presence of a particular protozoon, discovered by Laveran.

This parasite lives upon and penetrates into the red blood globules and the interior of the tissues, causing the febrile phenomena, anemia and all other symptoms met with in malaria. The Italians have studied this question particularly, and the researches of Golgi deserve especial mention.

Another formulates the discoveries as follows:

The parasites of malaria accomplish their cycle of evolution in a well determined period; this period corresponds to the time elapsed between two consecutive febrile attacks.

The apparition of these attacks always coincides with the phase of segmentation or sporulation of a parasitic generation.

Author then shows how, by means of the microscope, we may follow the successive developments of the amebae after each access of fever.

—Gazzetta Medica Lombarda.

HYSTERIC SIMULATION.

Doctor Mikuliez recently communicated to the Breslau Medical Society an interesting case of hysteric simulation in a woman of 51 years. After a slight trauma, in 1891, she was seized with pain and vomiting of blood, and later with fecal vomiting. These ceased, but reappeared during the summer of 1892 in a more violent manner. The attending physician diagnosed a stricture high up in the rectum, and applied gradual dilatation with bougies. After transient

improvement, fecal vomiting again set in, and a trial explorative laparotomy was done, but nothing abnormal was found. Later there developed an abscess in the vicinity of the sacrum, followed by a free interval of several months. In 1893 vomiting again appeared, when a preternatural anus was formed, and, though it functionated well, the vomiting did not cease. Later, during the same year, she visited another physician, who amputated her right breast. The vomiting then ceased. She came to Mikuliez to be freed from her intestinal fistula, to which the anus preternaturalis had dwindled. This was operated on, the intestine loosened from the abdominal wall, and the gut sutured. Healing took place uneventfully, but all of a sudden she was taken with violent abdominal pains and fecal vomiting, and demanded that another artificial anus be made. In the meantime there was a great discrepancy between the vomiting and the necessary meteorism and peristalsis, while the good condition of her general nutrition contrasted with her frequent vomiting seizures—often twenty a day. In her vomit were found scybalae, such as would be formed in the large intestine, though the fecal vomiting of obstruction is generally liquid. The physician, therefore, was no longer in doubt that she was hysterical, and had her carefully watched, but without result. As she was being presented at a clinical lecture, she vomited up some fecal lumps covered with mucus. A stomach-tube was immediately introduced, and the gastric contents found to consist of innocent, sour-smelling and half-digested food, without the slightest trace of a feculent odor, while that which she had just thrown up had a pronounced odor of feces and a neutral reaction. The patient had undoubtedly extracted the feces from the rectum, and secretly put them into her mouth. In this manner she had succeeded in deceiving physicians for years, and led them to do one capital operation after another.

—Hospitals Tidende.

Russian and German

Translated by DR. A. D. DAVIDOW.

A LETTER FROM THE SECRETARY OF THE TWELFTH INTERNATIONAL MEDICAL CONGRESS.

Professor P. I. Drakonow, secretary of the coming International Medical Congress, sent to the *Wratch* for publication the following explanatory letter:

To avoid all misinterpretations of article 21, of the regulations of the Twelfth International Congress, acknowledging the French as the official language and admitting other European tongues, German and Russian, for delivering addresses, communications and discussions, but not including the English, Italian and other European tongues, the committee of the congress esteem essential to present the following explanation. The perplexity caused by the many tongues at previous international congresses was so much felt that after the congress at Rome, the entire foreign medical press many times pointed out the necessity of having the papers and discussions at an international congress conducted in one language, the French receiving the approbation of the majority. The medical faculty of the Moscow University, who formulated and ratified the regulations of the congress, and by which the Executive Committee is compelled to guide, could not overlook the persistent request of the medical press and hence acknowledge the French as the official language of the diplomats; the language serving for the international exchange of all the European Governments. It proved, however, impracticable for the coming congress to carry out this idea to its letter; hence, for courtesy, had to admit the Russian.

The medical faculty as well as the Executive Committee of the congress also recognized, as a feeling of delicacy to the foreign visitors, that

Russian physicians should refrain as much as possible from utilizing their mother tongue, which is known by a very few of the foreigners. With these conditions there arose a new difficulty. Many of the Russian physicians having studied in the German universities, and from German text books, know better the German language than the French; hence the admission of the French only would, under the above conditions, prove a great inconvenience to our Russian friends. The medical faculty, owing to this, did not deem proper to deprive the members of the congress the privilege of expressing in the French or German, as desired. We do not deny that by admitting, by force of circumstances, two other languages we deviated from the principle of one language. In the future, however, we should aim to accomplish the principle in its entire.

In assigning sections (7 regulations), in general, the medical faculty kept close to the divisions of the congresses at Berlin and Rome. With slight alterations, called forth by local conditions, the main sections of the coming congress correspond to the main sections of the former congresses. More material changes were introduced in a few sections, where it was recognized more expedient to unite specialties in one general department, e. g., in the former congresses otology, laryngology and dental diseases constituted separate section. In the coming congress the Executive Committee, though fully recognizing the independence of the named specialties, still deemed more convenient to unite them to a certain extent with the section "surgery," to express their connection to clinical medicine in general and the unmistakable relation with surgery in particular. It is certainly understood that this union need not in the least hinder

the independent work of the representatives of the enumerated specialties at the congress. This will aid in admitting surgeons to actively participate in the proceedings of topics close to their callings. Specialists need not deem this as a reduction, but as a justifiable aim to obviate the unavoidable consequences of a too minute subdivision of the congress.

We repeat, that neither the medical faculty nor the Executive Com-

mittee, upon the deliberation and distribution of sections, were far from creating difficulties in the achievements in the line of specialties; having only more forcibly in mind the linking connections. We were assured, that such a step will not fail to aid the entire congress.

Note.—I have somewhat condensed the original letter, owing to its frequent recapitulation, which would undoubtedly prove of no interest to our readers.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

RADICAL PARALYSIS CONSEQUENT TO A FRACTURE OF THE HUMERUS.

M. Tixier, on behalf of Jaboulay, presents a case of paralysis and great pain in forearm, after a humeral fracture. The tissues now over seat of fracture, were freely divided, when it was found that the main nerve-trunks had been caught up and imprisoned in the callus.

These were liberated; when all the symptoms disappeared. As the wound healed and the scar proved further trouble of the same kind arose. In fact, three successive operations were necessary before a definite cure resulted.

NEPHRECTOMY FOR TUBERCULOUS KIDNEY.

M. Rafeir presented a case of patient treated surgically for tuberculous kidney. She had suppurating adenitis when an infant. Her trouble began two months after confinement. She had pain in her right side, with purulent and painful micturition. There was no hematuria. The lumbar incision and puncture of kidney's capsule, gave issue to an abundance of pus. Same author presented another case of same order. The patient, five years before,

had "white swelling" in left knee-joint. The kidney was riddled with cavernous spaces.

—Gaz. Heb., 27 Feb., '96.

THE TREATMENT OF GANGRENOUS HERNIA.

M. Koerts has operated on four cases of gangrenous hernia. These may be divided into two categories; one in which there is perforation, and another in which mortification is present, but the intestine is intact. In the first group he had seen 28 cases, with 19 deaths and 9 recoveries; in the second, 12 cases, with only one death. All of these patients were over 40 years. There were 32 of the crural type, seven inguinal and one umbilical. The area strangled was small; it was on the small intestine in two, and twice the appendix, which were opened.

The period of strangulation was variable. In eight, 24 hours; in one, 19 hours. Of these, only one survived.

In all these cases Koerte had either made a resection of the intestine or an artificial anus. In 13, at time of operation, intense peritonitis, prevailed. All these died. When there was free perforation with stercoral leakage; beside marked tympanitis, an artificial anus was made, as it oc-

cupied less time. In two Koerte pared the edges of the perforation and employed suture. Both died.

In desperate cases an artificial anus was to be preferred. In 28 so treated there were 14 deaths.

In all these cases an artificial anus affords immediate relief to the great distress, though in those surviving a large stercoral vent remains. In all doubtful cases Koerte carefully examined the intestine and returned it enveloped in iodoform gauze; of seven so treated, but one succumbed. In six cases the gangrenous line was turned in, and out used over; all recovering. M. Bergman always preferred resection when there was perforation.

M. Koerte replied that, in all cases of perforation, the constitutional condition was such as prohibits such a tedious undertaking.

M. Koenig had often seen the suture, employed as described, produce stenosis of the bowel. Linder had seen the same thing.

—Gazette Hebdomadaire, De Med., et De Chir., 5 Mars, '96.

PYELONEPHRITIS.

M. Routier presented three patients who had very serious histories.

One was a glazier, 37 years old. He often had to carry heavy burdens on his back. One day he was suddenly seized by very violent pains in his left side, and had to give up work. On examination a large tumor was detected in the left hypochondrium, which moved synchronously with the cardiac pulsations. From the ensemble of symptoms, tubercular kidney was made out. On incision the vast mass was brought into the wound and a litre of pus evacuated. The patient recovered with a urinary fistula. Six months later the fistula showing no tendency to close, the kidney was removed, when complete union followed.

In the second case, a woman. She came to the city for treatment of albuminuria. Tuberculous kidney was diagnosed. On incision an enormous quantity of pus was opened on. Nothing but a thin shell of renal tissue remained. This was dissected, the

patient making a most excellent recovery.

—Gaz. Heb. Med. St. De Chir., 19 Mars, '96.

TREATMENT OF HYDROCELE OF THE TUNICA-VAGINALIS BY IRRITATING INJECTIONS AND DRAINAGE.

E. Nicaise advises for treatment of hydrocele, after thorough cleansing, the draining off of serum; then, injection of 3 or 4 c. c. of 1-100 solution of cocaine, to remain for from four to five minutes. Then, pour tincture of iodine in, injected and well blended with the remaining serum for four minutes. The part is now kept open by a drain for some days, in the meantime proper dressings are applied. After it has drained four or five days a simple suspensory bandage is employed. This treatment he advises for simple uncomplicated cases.

Bruns, because of the violent inflammatory reaction which often follows iodine injection, prefers carbolic acid, which is painless and does not compel the patient to take the bed. It is true that the first injection will not always effect cure. After evacuation, 4 grammes of pure carbolic acid is rendered liquid by 5 or 10 parts of water or glycerine. After injection the scrotum is well massaged, when a drain is introduced of ample length, not to allow escaping fluid to cauterize the scrotum.

—Revue De Ther. Med. et De Chir., 15 Jan., '96.

(NOTE BY TRANSLATOR.)

Those methods and others currently adopted for the treatment of hydrocele should be relegated into past history. They are not only slovenly in application, intensely painful, dangerous, through resorption of the injected irritants, and uncertain in results.

It is true they are better than the old-timers simple tapping, just as the tram-car was an improvement on walking, but nowhere, when tested side the modern trolley or swiftly moving cable carriage. Their day is past, and so with tapping, injections and irritants; they have no

place in the modern therapy of hydrocele, which can be quickly, safely and radically cured, in appropriate cases by incision and resection.—T. H. M.

CONTAGION OF CANCER AMONG PHYSICIANS.

M. Guermonprez, of Lille, has observed that the ichorous discharges of cancer may inoculate the afflicted in other exposed parts. It may also infect the surgeon.

He reports two cases. One, a confrere with an epitheloma of the temple. The second, was Guermonprez himself.

After a slight trauma he removed a cancerous tongue; when soon after, he had developed under his nail a rebellious papilloma, which he destroyed by free cauterization.

TREATMENT OF BUCCAL EPITHELIOMA BY CHLORATE OF POTASH.

M. Dumontpallier presented three patients who had suffered from tumors of the gums and tongue. These he believed were canceroid. By the local and internal use of the chlorate of potash all had disappeared.

M. Reclus said that in imitation of his masters, Broca and Fereal, he had tried this treatment for a long time, with good results in cutaneous canceroids; but when a mucous membrane was involved, it was another matter, as his results were not satisfactory.

—Gaz. Heb. Jendi., 12 Mars, '96.

THE TREATMENT OF GENITAL PROLAPSE.

Lamand publishes five cases in M. Folet's service. He employs generally Chaput's plan; which is to first drag down and amputate the cervix high up; then resect the walls of the vagina, closing all the open vessels by torsion; after which the vulvar outlet is closed, as in aperineoraphy.

M. Colle reports the extraction of an ovarian cyst as large as an in-

fant's head, by way of the vagina. The body of the uterus was cut in two, as in the Quenu Muller method. Enucleation was simple and rapid. Recovery was prompt.

M. Michels, of London, reports a case of prevascular abscess. It was opened by a large incision and evidently had extensively burrowed. He points out some of the difficulties attendant on diagnosis in this form of suppuration.

—Revue De Ther. Méd. Chir., 1 Fév., '96.

A NEW FORM OF ANTISEPTIC. TREATMENT OF WOUNDS.

BY DR. C. L. SCHLEICH, BERLIN

If gelatine dissolved in water is exposed to Formalin vapors, a chemical compound possessing completely novel properties is formed. The gelatine completely loses its gelatinous character and becomes an extremely indifferent and resistant hard transparent body. Neither dry nor moist heat can dissolve it, neither organic nor mineral acids, alkalies or alkali, or acid salts affect it. When heated, the mass becomes slightly extensible, but regains its stiff elastic nature on cooling. The Formalin which is not mixed with, but chemically combined in the compound, also becomes inactive, so that hyphomycetes have sometimes been observed on the surface of gelatine plates hardened with Formalin, and when broken into fine powder and mixed with bacteria, the compound exerts no kolyseptic influence.

It was the object of my investigations to ascertain whether it is possible for the Formalin gelatine to give up its Formalin in the organism and so to effect an antiseptis by means of the tissues elaborating their own antiseptic from this non-antiseptic and non-toxic substance.

As a trial the incorporation of Formalin-gelatine in the abdominal cavity of a rabbit was attempted. A piece of dry Formalin-gelatine about the size of an apple was inserted and sewn up with aseptic precautions. The rabbit lived and remained perfectly well the subsequent six and a

half weeks. When I then reopened the abdomen I found immediately under the old opening in a coil of intestine a radiating horny connective tissue about half the size of the piece of Formalin-gelatine inserted, but to my great astonishment no sign of the Formalin-gelatine itself. Section of the newly formed connective tissue explained the situation at once. In the centre of the neo-plastic tissue was a soft whitish nucleus about the size of a hazel-nut, which apparently constituted the remainder of the absorbed material. This was most astounding, that the peritoneum, leucocytes and body juices should have dissolved in so brief a period a substance which exhibits such great resistance to solvents outside the body. Still more surprising was the fact that the implantation carried out without special precautions in the body of a rabbit, which is specially disposed to lymphomatous eruptions, developed no sign of cheesy degeneration around the smooth cicatrix.

This experiment I have naturally repeated and also on pigeons and dogs, mixing in some cases even bacteria with the powdered Formalin-gelatine, after having determined absence of kolyseptic action in the powder. The powder was absorbed without reaction. Supported by this experience I began to employ powdered Formalin-gelatine for the treatment of wounds and found that it answered all expectations. The human system also decomposes Formalin-gelatine with continuous liberation of the antiseptic. Even contact of the tissues with this preparation is sufficient to cause liberation from the absorbed gelatine in statu nascendi, molecule by molecule, a slow continuous evolution of Formalin, which effects an extremely practical wound sterilization. Here an antiseptic is used continually, as it is formed, in the molecular condition. The application is a permanent one and equally active in the wound at all times. Hence the difference in the principle of this method from all previous antiseptic measures. In the latter a temporary, and for a time,

very energetic contact action of the antiseptic may take place, but in consequence of the formation of almost insoluble compounds between antiseptic and tissues subsequent action is prevented.

If the experimental proof of the constant action of Formalin-gelatine is doubted, the pre-eminent clinical utility of this material for healing wounds must be recognized. With the aid of this powder all acute purulent processes are overcome and a guarantee is afforded for the aseptic course of the wound without further measures. I have employed it without drawback in 120 cases of acute purulent processes, in 93 aseptic wounds, in 4 compound fractures, and in 2 deep scalp wounds.

At the same time I would mention that instead of the strict aseptic measures usually adopted, even in the most complicated wounds, only mechanical purification was carried out and the powder carefully dusted over all the wound, with the effect that in all cases the purulent processes were stayed within 24 hours, the compound fractures healed aseptically and without fever, and in all cases of aseptic operations the presence of the powder afforded a guarantee for uninterrupted healing.

In presence of fresh blood and in clean wounds the powder forms in a few hours an absolutely dry and very firm scab. In fresh purulent cases, if no necrosis of the tissues is present, the formation of pus ceases completely within 24 hours and frequently pure serum instead of pus flows from the wound. Such wounds always remain soft and unreddened round the edges. Furuncles, carbuncles and phlegmona can be brought under control in 24 hours so far as the powder comes into contact with healthy or inflamed tissues; at the same time it is characteristic that the blood in the bandage remains bright red, which proves the liberation of Formalin, which alone possesses this property of keeping the red blood corpuscles.

Production of pus, if no necrotic residues are present, is stayed at once and the healing process shorten-

ed. If necrotic tissue is present, as in old ulcera cruris and in tuberculous and luetic infections, the Formalin-gelatine remains inactive but develops its properties all the more in acute inflammation and is a prophylactic to infection. Fresh wounds I no longer disinfect, but leave their healing to the activity of the tissues. The healing of wounds is so satisfactory that the most critical eye can detect no fault therein.

Experimental investigation of the new vulnerary by my friend A. Gottstein showed that hydrochloric acid pepsine solutions are in like manner able to decompose Formalin-gelatine outside of the organism. This discovery extended the application of Formalin-gelatine to the treatment of wounds where the automatic development of the antiseptic failed, namely where necrotic tissue and masses of dried secretion prevented the gelatine coming into contact with the healthy tissue.

In such old wounds the powder should be scattered over the wound as usual, and then moistened with.

Pepsini.....	75 grains.
Acidi hydrochlorici	5 minims.
Aq. dest.....	4 ounces.

The ferment effects the decomposition of the molecule and constant development of Formalin vapors, otherwise brought about by the healthy or inflamed tissues, but which the paralyzed or necrobiotic cells are unable to do.

To summarize briefly, we possess in powder form a remedy, which in contact with clean wounds forms a firm scab without other disinfectant measures, in the course of a few hours, so that primary stitched wounds are in the shortest possible time covered with a protective layer which prevents infection. The Formalin-gelatine is further able, by the molecular antiseptics set up by cellular activity, to destroy bacteria present in the tissues, and enables the cellular tissues to rapidly become masters of the situation. The Formalin-gelatine stops acute purulent processes with great certainty, if after incision and application of the powder the production of tissue and liberation of Formalin vapors is allowed

to go on undisturbed; in presence of much necrotic material the cell activity can be supplemented by digestion with pepsin-hydrochloric acid.

Formalin-gelatin, manufactured by the Chemische Fabrik auf Actien, vormals E. Schering, Berlin, Germany, is introduced to the medical profession under the name of "Glutol-Schleim."

—Therapeutische Monatshefte, February, 1896.

FOREIGN BODIES IN THROAT.

The difficulty of removing fish-bones and similar obstructions impacted at the lower end of the oesophagus is well known, and various mechanical measures and appliances have been invented to deal with the difficulty. One of the most simple, however, and, as reported, one of the most effectual, is to administer to the patient a pint of milk, and forty minutes afterwards an emetic of sulphate of zinc. The fluid easily passes the obstruction, and, is of course, rapidly coagulated in the stomach into a more or less solid mass, which, on being ejected, forces the obstruction before it and so effects its removal.

—N. Y. Med. Times.

But, how about those cases in which swallowing is difficult or impossible? The better way to proceed in many of those cases, is to first thoroughly cocaineize the pharynx and then make a cautious inspection. When the body passes below the sternal-notch the danger of strangling is past.

When the body impacted is large, as false teeth, etc., gastrotomy combined with cervical oesophagotomy enables us to explore and clear the entire gullet.—Ed.

FOOTBALL CASUALTIES.

On February 8, at Ewell, Surrey, in a match between the Ewell and Guy's Hospital teams, a player of the latter side fractured his leg and was removed to Guy's Hospital. On the same day, during a match on the Caldecot ground, Abingdon, the Abingdon Rovers against the Cloth-

ing Factory team, a player sustained a fracture of the right leg; in a game between the Sunningdale and Eton Temperance teams the captain of the latter team fractured his fibula; and in the course of a match on the same day, the Birkenhead Wanderers against the St. Helens Recreation teams, a well-known three-quarter back of the Birkenhead Wanderers received a kick on the head. He continued playing till the end of the match, but the following day he was found to be suffering from concussion of the brain. Pneumonia supervened, to which he succumbed on February 15. On February 15 in a match, the Chichester Reserves against the Littlehampton team, a youth sustained

a compound fracture of the left leg, and in a game on February 17, at the Steyning Grammar School, a youth fractured his left forearm. On February 20, in a match on the Richmond (Surrey) Athletic Ground between the Yorkshire and Surrey Clubs, a player fractured his clavicle. On February 22, during a match between the Grantham Olympic and Grantham Victoria teams a player fractured his right leg near the ankle; and on the same day in a match at Pudsey between the Pudsey and Elland teams the Pudsey full back was injured. On medical examination subsequently it was found that the muscles of the leg were very severely bruised.

—Lancet.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

A SIGN OF BREECH PRESENTATION.

In La Clinique Internal Pinard asserts that when, in a woman who has passed the sixth month of pregnancy, a sharp pain is produced by placing the hand on the fundus uteri, it may be almost affirmed that there is a breech presentation. The fact is very frequent, although not constant, being present in about 70 per cent. of cases. The pain is sometimes spontaneous, and if version is performed it disappears. Pinard claims that the pain is due to the "irregular distention produced by the rounded mass of the head," but he does not explain how an irregular distention can be produced by a rounded mass.

—Indian Lancet.

THE OPERATING TABLE.

Joseph Price has no operating room or table, a board laid upon two stands placed at the bedside and covered with a sterilized sheet con-

stituting his equipment; yet his results in abdominal surgery have been phenomenal. And Carl Beck asserts that any surgical operation can be performed in the patient's room as well as in a hospital, so complete are modern methods of asepsis.

—Medical Age.

THE INDICATIONS AND MODES OF DRAINAGE AFTER ABDOMINAL AND VAGINAL SECTION.

By Nicholas Senn, M. D., Chicago.

So many names of distinguished gynecologists appear on the programme to participate in this discussion that I have deemed it wise to curtail my remarks as much as possible, and, instead of going over the enormous literature on the subject, I will give you the simple rules in reference to drainage which I follow in performing abdominal operations.

Drainage of the abdominal cavity

is an expression of the present imperfect state of surgery. It is often an unavoidable evil. It should be limited to appropriate cases, and it is, therefore, well that the indications for it should be laid down clearly, so that we may have eventually some definite rules that will guide the surgeon in his abdominal work. There are now no fixed rules. Some surgeons avoid drainage wherever possible; others drain as a rule. If I were permitted to pass my judgment on this question as a whole, I would say that the surgeon who has the ambition to operate quickly, to make an impression on the bystanders, should drain frequently; while, on the other hand, the surgeon who proceeds with his work carefully, step by step, with plans well laid out, with his practical knowledge resting on a firm pathological basis, will only drain in exceptional cases. After opening the abdomen the surgeon has frequently to deal with affections that absolutely call for drainage. There is no other course to pursue. He meets with pathological conditions that cannot be successfully removed; he meets with cavities the walls of which it is impossible to extirpate, and consequently he proceeds to establish an abdominal fistula, a great consolation to the operator, because it enables him to do something, so that probably during the course of time Nature will come to his rescue, taking advantage of the temporary drainage, and eventually closing the cavity where drainage was established. One of these conditions is met with in a distended or diseased gall bladder. It is my firm conviction that the best success obtained in cases of disease of the gall bladder requiring opening of the organ, in the absence of a permanent occlusion of the common duct, is the establishment of an external fistula. This operation shows the greatest success, is attended by the least danger—in fact, it is almost devoid of danger if the surgeon is careful to prevent infection of the peritoneal cavity during the operation.

The next condition—one that is

not so frequently met with (but there are now some forty or sixty cases on record)—is cyst of the pancreas. A few bold surgeons have made the attempt and in a few isolated cases have succeeded in extirpating pancreatic cysts with a mortality of more than 50 per cent. Statistics show that the formation of a fistula usually results in a permanent cure in the course of a few weeks, and that a permanent fistula is the exception.

Very often the surgeon makes a mistake in diagnosis, opens the abdomen for a supposed ovarian cyst or an ovarian tumor of some kind, and is astonished, when he has exposed the abdominal organs, to find a retroperitoneal cyst, a hydronephrotic kidney. Many surgeons under such circumstances have resorted to the formation of an abdominal fistula, thus draining the distended pelvis of the kidney—a very unwise procedure, because a lumbar fistula will accomplish the same object, the formation of which is attended by less danger, and eventually, if it should become necessary, a nephrectomy is attended by a great deal of difficulty if previously the organ has been attached to the abdominal wall. So that I should lay down the rule that in hydronephrosis, whether diagnosed before or during the operation, the surgeon should make a lumbar nephrotomy.

Then comes that large class of pelvic abscesses without removable walls; abscesses which have had their origin in the pelvic removable walls; abscesses which have had their origin in the pelvic connective tissue, perimetritic abscesses, abscesses originating within the Fallopian tubes, and abscesses within or around the ovary, but in which the careful surgeon will make the most scrutinizing examination before he attempts the work of enucleation. If he finds enucleation impossible it would have been vastly better if he had dealt in a more conservative manner with his patient, and had resorted to abdominal drainage as taught us by Mr. Tait.

—Am. Gyn. and Obstet. Jour., March, 1896.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

IODOPHENINE. (Iodophenacetine.)

Fine crystals resembling potassium permanganate, of feeble iodine-like odor, burning taste and colors the skin yellow. Incompatible with water, antiseptic, irritant.

IRON ALBUMINATE. Scales, soluble in water; neutral, easily assimilated form of iron. (Anemia, chlorosis, etc.) Dose 3 to 6 grs. 3 times daily.

Solution. Reddish brown liquid of agreeable taste, generally of 10 per cent. strength.

Solution (the original). Drees. A perfectly neutral preparation, not duplicated by extemporaneous mixtures.

IRON OXALATE.—Yellowish powder, soluble in hydrochloric acid. Ferruginous tonic in anemia. Dose, 9 grs. daily.

IRON SUCCINATE.—Amorphous reddish-brown insoluble powder. Anti-lithic. (Biliary calculi). Dose, one teaspoonful after each meal.

IZAL.—Resembling creolin, etc., contains varying proportions of cresols, hydrocarbons, water and glue, as an emulsifying agent.

KERATIN.—Peptonized. White powder (hygroscopic, and therefore usually occurs commercially as brown mass), soluble in alkalis. As coating for pills intended to act only in the intestines, not in the stomach.

KOLA.—Nut of the *Sterculia acuminata*. Powerful nervous and muscular tonic. The fresh fruit and its preparations said to be much the more powerful. Dose, 10 to 30 grains, three times daily in wine, fluid extract or decoction.

KOUSSEIN.—Resinoid from *Brayera*. Yellowish brown powder,

readily soluble in A., E. alkalis; slightly so in W. Anthelmintic. Dose, 25 to 50 grs. divided into four doses.

KRESAPOL.—Solution of crude cresols in soap, resembling lysol, etc. Antiseptic.

KRESIN.—Solution of cresylic acid in solution of sodium cresyloxylacetate. Clear, brown, liquid soluble in W. A. Antiseptic. Applied in 1-2 to 1 per cent. solution.

KRESOL.—Pure, liquefied. Pure crystals of ortho-cresol liquefied by addition of water as in carbolic acid.

LACTOL. (Beta-Naphthol-Lactate).—Tasteless and soluble substitute for benzo-naphthol, as an intestinal antiseptic.

LACTOPHENIN. (Lactyl-Phenetidin).—Soluble substitute for phenacetin, crystalline bitter powder. Antipyretic, anti-neuralgic, analgesic, and sedative (specific in typhoid). Dose, 8 to 15 grs. 3 to 6 times daily.

LACTUCIN.—Active principle of lactucarium. White scales, soluble in 70 W., A. Sedative hypnotic.

LANTANINE.—Alkaloid from *Lantana brasiliensis*. (Yerba Sagrada).—White, bitter powder. Antipyretic and antiperiodic, similar to quinine. Dose, 15 to 30 grs. a day, in pills, immediately after a febrile attack.

LEPTANDRIN.—Glucoside from *Leptandra Hepatic*, stimulant, purgative. Dose, stimulant, 1 to 3 grs.; purgative, 8 grs.

LOBELINE SULPHATE.—From the leaves of the *lobelia inflata*. Yellowish white, rather hygroscopic powder. For bronchitis, dysp-

nea, and spasmodic forms of asthma. Dose, 1 to 6 grs., either internally or hypodermically.

LORETIN. (Meta-iodo-ortho-oxyquin-oline-ana-sulphonic acid).—Pale yellow, odorless, crystalline powder, insoluble in E., C., benzine and oils, slightly soluble in W., A. Uses and dose same as iodoform, for which it is substitute. Forms emulsions with oily fluids.

LOSOPHAN. (Tri-iodo-meta-chesol).—Colorless, odorless crystals, insoluble in W., slowly in A., easily in E., C., fatty oils; contains 78.4 per cent. iodine. In parasitic skin diseases in 1 per cent. solution or 1 to 3 per cent. ointment.

LYCETOL. (Dimethyl-piperazin tartrate).—Proposed as a substitute for piperazin. Granular, rather hygroscopic powder, readily soluble in water. Antirheumatic, diuretic (gout, etc.). Dose, same as piperazine.

LYSIDIN.—Similar to and competitor of piperazine, as uric acid solvent; hygroscopic, reddish-white crystals, readily soluble in water. Dose, 2 to 5 grammes per day. Not in market.

LYSOL. 50 per cent. saponaceous solution of cresols. Brown, oily looking clear liquid, with feebly aromatic tar-like odor, miscible with water, A. E., C., and glycerine. Powerful antiseptic, only 1-8 as toxic a carbolic acid. Antiseptic, in gynecology, general surgery, etc.

MAGNESIUM PHENOLSULPHONATE.—White, almost odorless, bitter needles. Soluble in 2 W., 5 A. Antiseptic purgative. Dose, 15 to 30 grs. (Sozal is the aluminum salt.)

MALAKIN. (Salicyl-phenetidine Malacin).—Composed of salicylic aldehyde with para-phenetidine. Salophen is a compound of the same base with salicylic acid. Small bright yellow needles, insoluble in water, sparingly in A. Slow, mild, antipyretic (fever of phthisis), analgesic (neuralgia), anodyne, free from bad after effects. Antirheumatic. Dose, 15 grains, 4 to 6 times daily.

MALLEIN.—Extract of the cultures of glander's bacillus. Useful in veterinary diagnoses like tuberculin. Fever following injections indicates presence of glanders.

MANGANESE ALBUMINATE.—Yellowish white scales, soluble in water.

MANGANESE SACCHARATE.—Brown powder, soluble in water. The albuminate, peptonate and saccharate have been recommended in the same way as hemogallol.

MEDULLARY GLYCERIDE.—Glycerin extracts of bone marrow from calves' ribs. Tonic. Anemia.

MERCURY AMIDO-PROPIONATE. (Alantinate).—White crystalline powders. Soluble in 3 water. Antisyphilitic. Dose, 1-12 to 1-4 gr. daily, either by the mouth or hypodermically.

MERCURY AND ZINC CYANIDE.—White powder, insoluble in water. Antiseptic, non-irritant dressing.

MERCURY BENSOATE.—Colorless, tasteless, and odorless crystals, sparingly soluble in cold water, more so in hot water, A. Subcutaneously in syphilis like mercuric chloride.

MERCURY GALLATE.—Dull, greenish-black powder, contains 37.17 per cent. of mercury. Antisyphilitic, without the disagreeable properties of chloride or subiodide. Dose, 11-2 to 3 grs. daily in pill form.

MERCURY GLUTEN-PEPTONATE.—See gluten-peptone sublimate.

MERCURY SALICYLATE.—White, odorless, tasteless, neutral powder, contains 59 per cent. of mercury. Insoluble in water, A., soluble in solution of sodium chloride. Antisyphilitic antiseptic. Applied in one per cent. powder (chancre, etc.) or in 2 to 10,000 solution (gonorrhea). Dose, 1-60 to 1-8 gr. in pill form.

MERCURY TANNATE.—Closely resembles the gallate. Antisyphilitic. Dose, 1 to 2 grs. half to one hour after meals.

(To be Continued.)

Prescriptions.

The Cutaneous Irritation of Measles, etc.—Balsam of Peru is a useful addition to many ointments, both on account of its pleasant odor, and because it is in itself a valuable non-irritating antiseptic. When added to vaseline it is much more readily mixed if a few drops of alcohol or castor oil are added. The following may be recommended to allay the cutaneous irritation of measles, chicken-pox, etc:

R. Lanolini puris1 oz.
 Vaselini3 dr.
 Olei ricini3 drops
 Aquæ destill.5 dr.
 Ft. ung.—S. Apply as required.

Preparations of vaseline or paroline can have a pleasant odor given to them by the addition of a few drops of oil of wintergreen.

—Practitioner.

Chronic Catarrhal Enteritis.—If constipation exists, cascara, aloin, podophyllin, or compound extract of colocynth may be used. A good combination to be recommended is the following:

R. Strychnine sulphatis1-40 gr.
 Resin. podophylli.1-12 gr.
 Extr. belladonnæ1-4 gr.
 Pulv. ipecacuan.1-4 gr.
 M. et ft. pil. No. 1.

Sig: Such a pill to be taken after each meal.—G. N. Lockwood.—London Med. Times.

—American Journal of Obstetrics.

TREATMENT OF FUNCTIONAL IMPOTENCE.

In functional impotence we have usually to deal with a condition in which the sexual apparatus is being constantly excited and irritated, and consequently the reflex centre in the spinal cord is never at rest. Therefore, in treating such cases, J. Lindsay argues, one should not begin by putting the patient on aphrodisiacs (as phosphorus or damiana), but adopt a line of treatment that will soothe and tranquilize the patient,

and stay his more or less morbid desire to accomplish sexual intercourse. For this purpose he prescribes the following mixture:

Tincture hyoscyamus....20 min.
 Potassium bromide.....20 gr.
 Camphor water..To make $\frac{1}{2}$ fl. oz.

To be taken in water four times a day.

After following this plan for two weeks, or longer if necessary, and its purpose having been attained, it is then, in the case of a married man, permissible to begin tonic aphrodisiac treatment.

The following combination Dr. Lindsay considers of great value:

Strychnine sulphate....1-32 gr.
 Dil. phosphoric acid....1 fl. dr.
 Distilled water1 fl. dr.

For one dose, to be taken in water four times a day.

—Cincin. Med. Jour., 1895, X., p. 753.

SYRUPUS AURANTII.

An elegant and fine-flavored preparation may be made by the following formula:

R Simple syrup..7 fl. ozs., 5 fl.drs.
 Concentrated
 infusion of
 orange peel....2 fl. drs.
 Soluble es-
 sence of bit-
 ter orange..1 fl. drs.

Mix thoroughly.

—Pharm. Journ.

BREWERS' YEAST IN DIABETES.

At the French Congress of International Medicine, Cassaet reported good results obtained in diabetes by administration of brewers' yeast in daily doses of one and one-half ounces. It is readily taken, tolerance being soon established. The weight of patients increased three to eight pounds in a fortnight; strength also increased. The proportion of sugar diminished two-thirds to three-fourths in a fortnight.

For Physicians' Wives

THE SANITARY MANAGEMENT OF FLOORS AND FLOOR COVERINGS.

To those who know the true inwardness of things, the sight of a housemaid brushing a dusty carpet is suggestive of many evils. The death of Pasteur has reminded the world of what is constantly present in the thoughts of medical men, namely, that while micro-organisms are the great producers of disease, dust is the great carrier of micro-organisms. Now that we know these things, now that we understand that in the quiet hours of night the germ-laden dust settles down upon the floor, it is distressing to find how little our knowledge is put to practical use, and to see old customs still unchanged, old habits which we know to be destructive carried on, and to find the housemaid on her knees, with her brush and dust-pan stirring up dust to the detriment of every one, and breathing germ-laden particles to her own destruction. It needs but a small amount of common sense to see that if carpets must continue, a thing greatly to be deprecated, they should be rubbed with a damp cloth rather than brushed, and that if, in deference to prejudice, they must be brushed, this could be done by a covered American sweeper with plenty of damp tea leaves. Of all ways of removing dirt from a carpet the worst is by the use of the ordinary short brush, which involves the housemaid's kneeling down in the midst of the dust which she so needlessly creates, and drawing it into her lungs with every breath. For ordinary household use something like linoleum, something which can be washed with a wet cloth every morning, would seem to be the best covering for floors; but if carpets must be, and if it is impossible to teach the present generation the

evils of seeking present comfort at the expense of future risks, at least let us remember that carpets may be washed even where they lie; that, till the day of washing comes, a closed sweeper is better than a brush, and that the worst form of brush is one with a short handle.

—British Medical Journal.

LATE SUPPERS.

The old tradition that to eat anything just before going to bed was sure to produce indigestion and render sleep impossible is now happily exploded. It is not good, as a matter of fact, to go to bed with the stomach so loaded that the undigested food will render one restless, but something of a light palatable nature in the stomach is one of the best aids to quietude and rest. The process of digestion goes on in sleep with as much regularity as when one is taking violent exercise to aid it, so something in the stomach is a very desirable condition for the night's rest. Some physicians have declared, indeed, that a good deal of the prevalent insomnia is the result of an unconscious craving of the stomach for food in persons who have been unduly frightened by the opinion that they must not eat before going to bed, or who have, like many nervous women, been keeping themselves in a state of semi-starvation.

Nothing is more agreeable on retiring for the night than to take a bowl of hot broth, like oat-meal gruel or clam soup. It is a positive aid to nervous people, and induces peaceful slumbers. This is especially the case of cold winter nights, when the stomach craves warmth as much as any other part of the body. Even a glass of hot milk is grateful to the palate on such occasions, but a light, well-cooked gruel is better, and in our climate, during the cold months

of winter, should be the retiring food of every woman who feels, as many do, the need of food at night.

—Canada Lancet.

REST BEFORE DINING.

If a woman courts indigestion, she can devise no surer method of getting it than by eating heartily when she is very tired. Chronic dyspepsia is almost sure to follow a long course of heavy dinners eaten when the diner is worn out with her day's work.

To prepare for dinner after a busy day, take off the street gown, take out the hairpins, and take off the shoes. Brush the hair a few minutes and pin it loosely up, but not in the same place where it is usually worn. Have ready a bowl of very hot water. Wash the face and neck in it. Press the wash cloth, as hot as it can be borne, at the back of the neck and over the eyes. When the hot water has relaxed the tense, tired muscles somewhat, dash cold water, with toilet vinegar or cologne in it, over the face and neck. Then lie down for fifteen minutes. Keep the eyes closed and the mind as far as possible a blank.

Then drink a cup of hot water or of hot, weak tea. Put on a fresh gown, and, unless the weariness has been usually severe, the blithest and most rested sensations follow, and dinner is a pleasure and not another duty in the day's dull routine.

—N. Y. World.

THE MORNING MEAL.

The appetite must be coaxed a little in the morning; and a woman who has made a study of breakfasts declares the following menus will tempt even the members of the family who were out late the night before:

Ice-cold fruit, cut and seeded; Spanish omelet with creamed potatoes, graham toast and coffee, baked apples with sugar and cream, followed by chicken hash on toast; baked potatoes and coffee, wheatena with sugar and cream, eggs scrambled with bacon, sliced tomatoes and cof-

fee, oranges and bananas sliced together, broiled smelts, Boston brown bread toast, French fried potatoes and coffee, white grapes, eggs poached in cheese, broiled tomatoes, hot rolls and coffee.

—Exchange.

MASSAGE FOR HEADACHE.

In many cases massage will be found invaluable in relieving the pain of a congestive headache. The movement should be made with the palm or surface of the fingers and be a vigorous one.

Begin on top of the head and continue the treatment backward to the base of the brain. Continue from the temples backward and downward. Much and heavy rotation at the base of the brain should follow; also crosswise rubbing on the back of the neck and stroking from the head down back of the ears to the shoulders, for the purpose of emptying the veins.

Women who have a tendency to congestive headache will do well to dash very cold water at the back of the neck and down the spine before the morning bath.

—Ex.

"WHEN I WAS SICK."

When I was sick and lay abed,
I had two pillows at my head,
And all my toys beside me lay
To keep me happy all the day.

And sometimes for an hour or so
I watched my leaden soldiers go,
With different uniforms and drills,
Among the bedclothes, through the hills;

And sometimes sent my ships in fleets
All up and down among the sheets;
Or brought my trees and houses out,
And planted cities all about.

I was the giant great and still
That sits upon the pillow-hill,
And sees before him, dale and plain,
The pleasant land of counterpane.

Robert Louis Stevenson.

The Times and Register.

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Original

THE DUTY LINE IN MEDICAL JOURNALISM.

BY JOSEPH R. CLAUSEN, A. M., M. D.

The most carefully edited journals are not, as a rule, either the most popular or the most successful.

This is a discouraging statement to make, and the sadder for being true, for true it is.

Were the reverse the rule, two powerful incentives would exist for the more careful editing of our columns—popularity and profit; but, since this is not the case, it is duty, not business enterprise, that calls for a closer editing of copy and galley proof; nor from title page to the “ad”

that disfigures the cover should anything escape this editorial scrutiny and revision.

It is hard, at times, to do one's duty, even when the plaudits of the populace, to say naught of their shekels, will in the end reward our efforts, but for an editor to conscientiously do his duty, recognizing at the time that in the doing of it he is lessening the popularity of his paper and the size of his income, is harder still. Yet it is the unflinching performance of this duty that we urge, insisting on it not alone for duty's sake, but because concerted action in this direction would soon restore medical journalism to the high eminence

Read before the American Medical Publishers' Association, Atlanta, Ga.,
May 4, 1896.

from which we feel it has fallen, and the faithful performance of the duty referred to would soon receive other and more substantial reward than virtue's own. In short, the entire situation would be changed and the best edited papers would at once be the most successful and popular.

It is high time that the duty line in medical journalism was drawn and universally recognized when, as a unit, the medical press shall say to the abuses that threaten its usefulness: "Thus far shalt thou go, and no farther." A line, too, that shall shut out the petty weaknesses that now impair its dignity and lessen its influence.

And what are these abuses, these weaknesses?

First, sensationalism—that bane of the newspaper press of to-day. Disguised, of course, in physician's garb, but none the less insidious in character, and all the more harmful in its influence.

Too great readiness to give space to the discussion of questionable theories, to the exclusion of sound, instructive argument in support of those that have been proven tenable.

A tendency to overshoot the intelligence of our readers, forgetting that we are writing to the many, not the few, and that every general practitioner is not a specialist.

A disposition to, at least, passively encourage professional "fads" simply because they are popular, instead of vigorously opposing them and mercilessly exposing them as fads.

A forgetfulness of the fact that we are, or are supposed to be, leaders of medical thought and not caterers to the perverted tastes of professional or literary epicures.

The ridiculous practice of expressing plain truths in such stilted, awe-inspiring language that the truths themselves are wholly obscured in the verbiage of words that clothe them.

A disposition to make our editorial columns subservient to the advertising pages, forgetting that even the negative endorsement of a medical journal has an influence that can scarcely be calculated and may be given a publicity by the advertiser that we ourselves would be most reluctant to have it given.

And last, but by no means least, the too frequent surrender to that potent factor—a yearly contract—and the acceptance of advertising that should have no place in the columns of a well-edited medical journal that respects the principles it professes to uphold.

We mean, in short, that the advertising columns should be as carefully edited as any in the paper, and that no preparation or article should be advertised that we cannot fully, intelligently and conscientiously endorse.

It is no new code of newspaper morals that we ask shall be adopted, but recognizing our high mission as the medical press of this country, that we return to first principles, those that combine honesty with common sense.

CANCER OF THE LARYNX.*

BY DR. THOMAS H. MANLEY, NEW YORK.

Dr. Manley began by submitting a diagram of the larynx, in sagittal sections, showing its relations to adjoining parts. He then reported a case of ulcerating larynx in a young woman. No two pathologists agreed on diagnosis of it; but finally assuming that it was malignant, her whole larynx

had been swept away by an operation, including three rings of the trachea and the opening into the esophagus. The unfortunate pa-

* Abstract of brief notes on Laryngeal cancer read before Celtic Medical Society, April 18, 1896.

tient survived but a few hours after operation. Dr. Manley then denounced the operation of complete laryngectomy, and said that it was a procedure so terrible and destructive in its effects on life, and mutilating in its results that it should be mentioned only to be condemned. The surgeon who advised or performed this operation undertook a very grave responsibility, and was answerable for the consequences to his patient.

He then quoted from McBride, who desired the value of microscopical examination here, of a section from the larynx, unless it penetrated deeply; as it is essential that the epithelial elements penetrated into the connective tissue layer.

Fauval noted that cancer of the larynx was very rare as a secondary affection. Morrell McKenzie and Lennox Browne each saw but one case.

Fauval, however, describes four cases of cancer commencing in the esophagus and extending into the larynx. This author, in recording 37 cases, found none in persons under 39 years; 34 were males and only 3 females. In Moure's statistics, including 179 cases, but 26 were females.

In the way of treatment tracheotomy is highly praised, as giving immediate relief and greatly prolonging life.

Semons says that from extended investigations and study, besides a case which came into his own hands, in which, after repeated examinations by the microscope, it was pronounced malignant, she made a good recovery, he believes that there are pathological conditions quite indistinguishable from cancer, microscopically, which are not malignant.

Lennox Browne says that the operation of tracheotomy in a large number is followed by a very considerable prolongation of life. In Fauval's four cases so treated, the average duration of life after tracheotomy was four years.

Cohen, speaking of laryngectomy, says: We can conceive of one liv-

ing without his larynx, and we know that there are individuals living as mutes to-day, feeding by the stomach tube, who prefer this to not living at all; nevertheless, the operation of complete removal of the larynx is hardly to be considered as justifiable in malignant growths.

The statistics in the operation for laryngectomy are not reliable, and very incomplete. Reports of the mortal cases are suppressed, and surgical operations are often set down as "successes."

For instance, in Fauval's group of 91 cases treated by laryngectomy, 30 died within 16 days; but he is silent on the other 60, as to what relief they enjoyed or how long they survived operation.

Watson Cheyne, in the Lettsonian Lectures (Lancet of issue for March 7, 1896), in a superb contribution to the surgery of malignant disease involving the pharynx and larynx, says under this topic: "It is remarkable how much we can take away in the tonsillar region without causing any great contraction or inconvenience; on the other hand, when pharynx and larynx are both removed, life is hardly worth living, except in rare instances. Certainly it is not in the case of a poor patient, who would have to spend the remainder of his days in the workhouse.

Dr. Manley concluded by calling attention to the simplicity of tracheotomy in these cases, by using cocaine hypodermically. Palliative treatment was the only safe and rational. The trachea and oesophagus were swung from the larynx, in the neck; they had themselves neither suspensory ligaments nor muscles, and hence when the larynx was amputated the gullet and trachea were drawn deeply into the chest; respiration became difficult and artificial alimentation was often exceedingly painful or quite impossible. It was well not to overlook the fact, that although the larynx is apparently superficially located, it lay in the midst of vital structures, and its dislodgment was only possible by an extensive division of vessels and a large loss of blood.

EXTRA UTERINE PREGNANCY.

BY V. BERRY, M. D., SPRINGDALE, ARK.

My attention was recently very forcibly called to the subject indicated by the heading of this article. It was the second time in my professional career, and I think the lessons learned in each case will be lasting, and to the benefit of both myself and patients. Did not see the second case reported, till death had occurred. The first case was under my immediate observation for 64 days, and though I may be accused of rank ignorance, confess to not having made a correct diagnosis till the abdomen was opened. I diagnosed the second case before seeing the victim, as will be related later on.

Case I. (This case occurred in my practice at Wagoner, I. Ty.). On the 26th day of January, 1893, Mrs. C. was sent for by a relative, whom I was attending in miscarriage. She (Mrs. C.) happened to be visiting five miles distant in the country, and as a consequence had to drive to town in one of our severest western storms, and was thoroughly chilled on arrival. (These details are given on account of their subsequent bearing on diagnosis). She assumed the duties of nurse on entering the house, and the reader knows how arduous the task of attending the wants of a woman in premature birth. A very severe acute pharyngeal catarrh was one of the results of her exposure. On the 27th she complained of a black, tarry discharge from the vagina, but remarked that she thought it due to taking cold, as she had had a slight bloody discharge for several days, and as she had not menstruated regularly for some time thought she was simply suffering from scanty menstruation and cold.

I will here state that this woman was 32 years of age, married five years, mother of two children, the youngest of which was one year, and

the oldest three years old. She had never had a miscarriage nor any of the diseases peculiar to her sex, except what was supposed to be a cancerous node on the right breast, which was removed during girlhood, and had never shown symptoms of return. Health good previous to and after marriage. She understood the laws of health as well as any one I have ever met in the laity, and through the application of that knowledge had succeeded in giving birth to two strong and vigorous children without affecting her own health in any perceptible manner. It is well to state that she was far above the average intellectually, and of the highest moral culture; hence all she said in regard to her ailments could be relied on as an intelligent statement of facts, in so far as it is possible for any patient to observe their own symptoms; and knowing her acuteness of observation as I did, I perhaps placed too much confidence in her own diagnosis, and not enough reliance on my own judgment. If I should censure myself in the treatment of this case it would be especially on that point. As I grow older in my professional work I become more and more impressed with the idea that we should depend on our own judgment to the absolute exclusion of the patient's suggestions. Not that the patients' story is not an essential factor in an intelligent history of a given case, but after the story is heard it should be sifted and analyzed and none of it adopted as a basis of counsel unless every detail will stand absolute proof, or verification by the physician's personal observation. But I digress. On the 29th Mrs. C. returned to the country feeling somewhat improved, after using the simpler remedies for catarrhal conditions. After a stay of four or

five days she returned to town still suffering from catarrhal symptoms, a dull pain—at times lancinating—in the left pelvic cavity, and a slight tarry vaginal discharge at irregular intervals. February 5 made a bimanual examination through both the rectum and vagina. Made out a small but indistinct mass in the left pelvis. Introduced speculum, and after some hesitation passed a sound to the fundus uteri. Uterus was tilted slightly to the right and was of about normal depth. Vaginal fornices were tender and pulsating, and a slight leucorrhœal discharge present. The uterus was tender and the endometrium congested and inclined to bleed on slight pressure. Ovarian regions were extremely sensitive. After weighing the different symptoms in my mind, I gave the following problematical diagnosis: Cystic ovary (may be ovaries), endometritis caused by "catching cold" during menstruation at some remote period and aggravated by recent exposure and pyosalpinx (?). I put a question mark after pyosalpinx for the reason that I was almost guessing at it. The symptoms were not sufficient, yet some of them seemed to point in that direction. A satisfactory examination could not be made without full anesthesia, as pain was too great. After the above diagnosis, which as before said was very obscure and not at all satisfactory to myself, put my patient on "rest in bed," copious hot vaginal douches medicated with glycerine and astringents, and inserted tampons to the fornix vagina at night, saturated with oil of eucalyptus, terebene and menthol. Also gave the usual "female tonics"—so-called.

After using this treatment in a routine way for several days, a very obstinate constipation set in. The accumulated feces caused severe pain through pressure on the surrounding pelvic viscera. Only very large doses of sulphate of magnesia, followed with large doses of cascara would suffice to keep the bowels open. These drugs had to be given continuously, as their cessation for a single day was immediately followed

by a tying up of the bowels. As my patient continued to grow worse, I concluded to inject the mixture of terebene and oil of eucalyptus into the uterine cavity—with little hope of result. I had read somewhere of the wonderful success some fellow had had in endometritis with this treatment, but I wish to say I do not believe all I read now. I carefully introduced a few drops of the preparation by means of a slender pointed uterine syringe. This was at 4 P. M., and I immediately left for my home, just across the street. At 6 P. M. was called in haste, as she was suffering agonizing pain. The most plausible theory as to the cause of this pain is that some of the fluid was injected through the tube, yet I can hardly accept that explanation, as only four or five drops were injected, and the os uteri was very patulous and entered with perfect ease. Extreme suffering continued for several hours, with irregular colicky pains, and there was present a constant desire to stool, but an inability to do so without the aid of an enema. She then passed a few small, round and very hard boluses. Patient was now rapidly losing both flesh and strength. In four or five days she readily consented to another uterine injection, as she and I thought it possible the colic was of intestinal origin, and simply coincident with the injection. Flatus was a constant symptom. To be brief, will say the results were precisely as before, except that my patient was in a feebler condition than after the first ordeal. I now put her on quinine (don't know why), and a general tonic and reconstructive treatment, and waited developments. She steadily declined, and judge of my surprise when on entering the room a few days later she almost insisted that I should use another intra-uterine injection. After considerable hesitation, I consented, and the result was all but fatal. I now advised the family that the only hope lay in an operation, and asked for counsel. At the patient's request I awaited the arrival of Dr. Isabelle Cobb, who was then completing her medical education at the

"Woman's Medical College," of Philadelphia. She arrived in the early part of March, and I found her to be a competent and intelligent recent graduate, with an amount of medical knowledge above the average student just from college. She was conversant with the teachings of Joseph Price, having been an attendant of his clinics. We examined the patient together, and consulted over the results, and to sum the matter up agreed on the main points and differed very little in treatment. At Dr. Cobb's suggestion we now put our patient on predigested foods, such as peptonized milk, junket, etc. She would now get better and worse by turns up to the 29th of March, when symptoms of peritonitis set in. Matters now assumed a grave aspect, symptoms pointing as we thought to rupture of a pelvic abscess. Temperature now ranged from 99 degrees to 101 degrees F., and had before been about normal at all times. The family was still backward about an operation. She rallied a little on the 30th, but we still gave the opinion that an operation was the only hope. On the 31st we prepared for opening the abdomen, and in the meantime our patient was gradually bleeding to death. Put her on the table at 12.30 P. M., with Dr. J. O. Callahan, of Muskogee, I. Ty., in charge of the anesthetic—ether—and Dr. Cobb as operative assistant. The patient being of slender build the abdomen was easily and quickly opened. The first thing that met our gaze was a large mass of clotted blood. On inserting the hand felt a boggy mass, and an elongated tumor in the left pelvic cavity. I now asked Dr. Cobb to insert her hand, before proceeding further, and to our surprise she drew forth a well developed foetus of about three months gestation. We also removed a partially detached placenta, which had had a wide attachment to the broad ligament and surrounding viscera. The bleeding was extensive, and it was out of the question to attempt to ligate all bleeding points, so we douched with hot water and packed with gauze. We saw a fatal termination was inevi-

table and so notified the family. She only lived a short while after recovering consciousness. Allow me to say to my reader that I hope he will never be placed in the position I then found myself. I had to witness life's slow but sure departure from one of the noblest woman I ever knew and one of the dearest friends my family ever possessed. She was a woman of grand character, and one whose loss to any community would be far greater than the loss of many whose names are heralded the lengths of our telegraph lines. It was the most heart-rending experience of my whole professional life, up to this time; and made me feel like throwing down instruments forever, though morally my conscience was at rest. I can never believe this woman could have been saved at that time, and it is yet a question undetermined in my mind as to whether she could have been saved on the day of tubal rupture or not, as each case is a law unto itself. The anesthetic was skillfully administered by Dr. Callahan, and Dr. Cobb rendered all the service that could be desired. On account of the early departure of Dr. Callahan, Dr. Cobb and myself held a partial postmortem. We simply removed the remaining portions of the placenta and examined the other viscera in situ. Ovaries slightly enlarged; left tube ruptured; placenta showed extensive preoperative rupture which, of course, gave great preoperative hemorrhage; which, combined with the bleeding tube, was the ultimate cause of death. If this case was lost through any fault of the attendants, it was through lack of early diagnosis; and as that was through lack of experience it can hardly be a fault; as the rarity of this accident in rural practice is well known. I have never met but two physicians who have seen a case in country practice. One can not gain experience in something he never sees, and he may read the literature on this subject ever so extensively and not have opportunity for practical demonstration, and I assure you the symptoms will simulate some of the more common pelvic diseases so closely that almost every

general practitioner will overlook an early diagnosis. Not so if he once sees and closely observes a single typical case. Of course, it is possible I could be misled a second time, as it is only human to err; but the sad termination of this case will ever put me on guard. Let me mention the fact that the literature on this subject was very meagre, up to that time, most of the standard authors dismissing the subject with as few words as possible, and seeming to be in great haste to drop all reference to what we now consider one of the most important subjects in modern surgery. Thanks to Lawson Tait, Joseph Price, and a few others, the immense mass of literature on the subject that has been spread broadcast in the past few years, is becoming systematized, and principles established on a sound surgical basis, and an untold number of lives are being saved as a consequence of their efforts.

Case II. Mrs. F., aged 37, mother of five children, the youngest of which was four years old, was taken with sudden and excruciating pelvic pain, accompanied by what seemed to be true labor pains, on the 10th day of February, 1896. On the evening of that day my friend, Dr. Christian, was called in, as the symptoms had become alarming. Of course, he could easily detect symptoms of peritonitis, but could not define a satisfactory cause, and as for myself I can not censure him for lack of diagnosis when I remember how badly I was at sea in my own case, and considered that this was his first and only case of the kind. He received a very obscure history from the patient, as she could not tell with any degree of accuracy as to whether she was or was not pregnant. She said if pregnancy existed it was of only one month's duration, and her evidence seemed to confirm this statement. She said her husband left home several weeks previous, leaving her in good health. One month previous to Dr.

Christian's call, she visited him and had intercourse, which was followed in a few days by irregular paroxysms of pain and bloody discharges. The pain increased from day to day, but not sufficient to place her in bed till the 10th of February, when, as before related, the symptoms assumed a grave character. On this day she was engaged in heavy manual labor, and no doubt ruptured the tube prematurely by sudden violent exertion. On the evening of the 11th, Dr. Christian saw her for the third time—twenty-four hours after his first visit—and seeing a fatal termination imminent immediately drove in town for the assistance of myself. On the road out we discussed the case, and I immediately pronounced it a case of extra uterine pregnancy—without seeing the patient. On our arrival at the bedside, we found the patient had expired a few moments before. Next morning we secured consent to open the abdomen, and the diagnosis was verified. A gallon or more of clotted and liquid blood had poured out into the abdominal cavity, and the right tube had a perforation which would easily admit the tip of the index finger. We did not procure the foetus, much to our regret, as the wishes of the family were that manipulations be made as short as possible. The reader knows how difficult it is to secure consent to an autopsy in private practice. The foetus was evidently of short gestation or it would have been readily found. In closing, allow me to say, that I do not claim special credit for having diagnosed this case, as the landmarks were very plain when compared with my first case. Neither can I lay any blame at the door of Dr. Christian, as I think most any of us, without experience as a guide, would have overlooked the diagnosis. Another thought—most patients of this kind will refuse an operation till it is too late to save them. I am now speaking of cases in rural practice.

VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

THERMOSTASIS IN AMPUTA- TIONS AND BONE RESECTIONS.

M. Paul Reclus, in his late emphatic protest against immediate amputation after mangling lesions of the limbs (*Revue de Chirurg.*, 10 Jan. '96), tells us that from the siege of Troy until the Sixteenth century no progress had been made in the technique of amputations.

During all these centuries, not only was the operative mortality large, but after results were highly unsatisfactory in a large proportion of those who survived.

The blazing or charring of the tissues, in sealing the vessels of the stump, so generally gave rise to consecutive endostitis, caries or necrosis, that painful consecutive bone resections had to be performed, the same post-operative ordeal to be gone over again. In those days they roasted the tissues; in our time we have been boiling them, with hot water.

But hot water will control parenchymatous bleeding; it may be said, Very true, but how about the ultimate effects?

On this question of amputation many have been led astray, through delusive statistics.

There is almost no end of the records of "successes," i. e., the patients survived the shock of amputation; but how fared the stump of the dis-severed member? On this point the records are strangely silent. The economy of blood in all operations on the body is without question a matter of supreme importance, but let this be practiced in a manner not prejudicial to the vitality or integrity of the structures involved.

Thermostasis induces its destructive action, on the divided living bone, in two ways:

1. By at once killing the outer lay-

ers of the exposed protoplasmic corpuscles, in all the structures divided.

2. When the temperature is not too high, by provoking irritation.

If we expose living leucocytes to the action of water, raised to a temperature varying from 100 to 130 degrees, no marked influence on their movement is produced, but when the temperature is raised to 150, motion ceases; while in water of high temperature—170 to 200—the protoplasm coagulates, swells and breaks up into granules. Precisely the same phenomena follow the application of extreme heat on any other tissue.

In the shafts of bones the greater part of the arterial supply is through the vessels which penetrate the surfaces through lacunar depressions of the periosteum; in the growing child the main springs rising in the true bone roots, the epiphyses; these sending off streams in opposite directions. The venous or residual blood is chiefly conveyed through the long, parallel Haversian systems; these canals consisting of expanded, tubular tunnels, which are lined by endothelia, resting on an exceedingly delicate substratum of lymphoid tissue. Besides, through these systems in the bone, the venous blood occupies a major part of the vascular structure of bone marrow; especially, in those about or beyond middle life.

In these structures the mischief commences after parboiling the bone. It is generally well known that, as a rule, pathologic processes in osseous tissues are slow in their work of destruction or transformation. For example, a divided muscle will unite, or go to pieces in gangrene, much more quickly than an osseous structure. And, therefore, why it is, only after the stump has closed well in,

that we are cognizant of insidious advance of osteo-myelitis in the stump.

The primary effect of hot water is to coagulate organic elements. The vessels are all thrombosed by a solid coagulation of the blood and a singeing of the open ends of the vessels.

But now, instead of a regular surface resorption of the divided end of the bone, inflammation begins, with interstitial, fatty changes succeeding. Infarcts of fatty matter block the venous channels, and in this manner, step by step, advance is made, until a vast area of the solid framework is reduced to a soft, punky, oily state.

In connection with this post-operative, fatty softening of bone, which I have only seen follow in these amputations, wherein hot water has been used as a styptic, or strong bichloride solutions as an antiseptic, there were two features worthy of special notice. One was, that in no case did the overlying soft parts participate in the degenerative changes of the skeleton, nor even present, in any degree, evidence of the underlying pathological changes in the bone.

Another was even more inexplicable to me, and cannot be well explained by any study of the changes in the bone elements.

It was this. In one case following a medio-tarsal amputation of the foot these inflammatory changes, resulting in softening in the stump, not only

extended backward through all the remaining tarsus, but jumped the articular isthmus at the angle, and extended well up both shafts of the tibia and fibula. The same phenomenon occurred in a knee case. Here I found that condyloid heads of the femur and the shaft as far up as origin of Winslow's ligament were soft, oily and broken down, as in the stump where resection was commenced.

It would scarcely do here to seek for an explanation, in the old subterfuge of dissemination though the lymphatics of blood vessels; for as far as we yet know, the bones have no lymph vessels, and although all the joints, and the knee in particular, have many recurrent arterial branches, they carry the blood away from, and not above a joint. Besides if the pathology of this progressive softening could be explained in this manner, it should equally apply to traumatic gangrene of any of the infectious diseases of bone, which as a rule is not the case.

Our only rational explanation is through the trophic nerves. The capsule and ligaments mechanically connect the ends of bones together; but at this link there is some description of a vital bond, which through a sympathetic irritative or devitalizing action may carry over this bridge and visit on the head of an innocent member the same calamitous changes as primarily involved its fellow beyond.





Editorial

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DEATHS FROM CHLOROFORM.

One rarely picks up an English medical journal which does not contain one or more accounts of death from chloroform administration for anesthetic purposes. It is remarkable what risks English surgeons will run to give chloroform in place of the safer drug, ether. To be sure chloroform has its advantages, but it is a question whether its disadvantages do not outweigh the former. The following from a recent issue of the London Medical Times contains some important points relative to the administration of chloroform.

"An inquest touching the death of Ernest Henry Sinclair Tinsley, aged 15 years, son of Mr. W. H. Tinsley, a local solicitor, who died whilst under the influence of chloroform for the purpose of teeth extraction at the surgery of Mr. Edgar Morris, surgeon-dentist. The mother of the deceased stated that she took her son to see Mr. Morris, who advised him to have 11 teeth extracted, and Dr. Bellingham was engaged to administer the chloroform. Dr. Joseph Bellingham stated that he carefully examined the heart and chest with the stethoscope, and as the result he

came to the conclusion that he was justified in administering chloroform. The anesthetic was applied on a towel. Insensibility having been produced, one tooth was extracted, when deceased showed signs of recovery, and witness again administered the chloroform. He could not say exactly how long deceased was under the direct influence of chloroform, but he should think it would be about 20 or 25 minutes. After the second application of the anesthetic the remainder of the teeth were extracted, and during the operation no serious symptoms were observable. As witness returned from putting away the towel containing the chloroform, he noticed that there was something wrong with deceased, and he pressed the chest, the action being answered by a more or less responsive respiration. Artificial respiration was at once resorted to, and continued for over 40 minutes, but deceased expired. Deceased was a little longer getting under the influence of the chloroform than was ordinarily the case under such circumstances. No more chloroform was given than was necessary to get

eous impression that Carter's thermo-inhaler is unsuitable for successful ether administrations. Dr. Snow found that by means of his inhaler one ounce of ether is usually inhaled by an adult for producing anesthesia of which fully one-half is not absorbed but exhaled again.

"Dr. Carter has, however, shown that by his method, ether anesthesia is induced and maintained for eight minutes with a loss of four drachms of ether from the bottle; for six minutes, with six drachms; 15 minutes, seven drachms; 12 minutes, seven drachms; ten minutes, six drachms; and 13 minutes, six drachms, unique uniform results, which, if considered, must prove its greater safety over that of every other method of ether administration, including that effected with Clover's ether inhaler, and its various modifications, in which, contrary to the general opinion, the quantity of va-

por administered is not under perfect control, and, on that account, obviously cannot be regulated, and no one knows the quantity of ether inhaled by the patient. Returning to chloroform administration it is stated that by the so-called "open" method five and a half ounces of chloroform were administered to an alcoholic man of 56 in one and a half hours. On this point Snow says: "I have always found that hard drinkers were rendered insensible, and even comatose, by the same amount of ether or chloroform as other persons, but they sometimes have a morbid excess of sensibility in the nerves of common sensation, and do not lie still under the surgeon's knife, except when the nervous centres are deeply narcotized and the breathing almost stertorous. On this account they sometimes inhale much more chloroform during a protracted operation than other persons."





SOME OF THE USES OF ELECTROLYSIS IN DERMATOLOGY.

Dr. C. W. Allen states in a paper read before the Lenox Medical Society that electrolysis has a varied application in the treatment of skin affections. It is not alone in hypertrichosis, or unusual growths of hair in unusual and undesirable locations, that the electrolytic needle finds its sphere of greatest usefulness; it use extends to the removal of smaller tumors, naevi and to the cure of a number of other abnormal conditions of the skin.

Referring to the question of what result can be promised an applicant for relief from a disfiguring growth of hair the author says "that many sittings will be required and a certain proportion of hair will grow again and require subsequent removal.

"To illustrate: Miss W. came to me from Connecticut in March, 1894, and in several sittings, extending over a week's time, I removed three hundred and fifty-seven long coarse hairs from the upper lip and chin, destroying at the same time a small vascular naevus upon the cheek.

"I told the lady that within some months certain of these hairs removed in which the point of the needle had not exactly touched the hair papilla would grow again and that it was to be expected in the natural course of events that a certain number of other hairs now present, but fine and devoid of pigment, would grow larger, coarser and darker. I was not therefore surprised to see the lady again in January, 1895, nor was she surprised at the necessity for her return to me.

"I now found 57 hairs requiring removal from the upper lip, 27 from the left side of the chin, 16 from the right side, and 55 from all other portions of the face, making a total of 155, or over 200 less than eight

months previously. I have not seen the patient since, but no doubt there are again present 50 or more hairs requiring attention."

Considering the question of whether electrolysis tends to simulate the growth of neighboring hairs, Dr. Allen believes that to a limited extent the irritation of the surrounding tissues caused by the current and the succeeding erythema favor increased activity in the growth of near-by hairs which are at first ignored; but it will not cause new hairs to grow on a bald head.

This author thus considers the question which has been raised as to whether it is consistent with professional dignity and strictly within the province of the physician to do this kind of work. "If the female beard is to be destroyed there is only one method now known, in my opinion, which will do it effectively, viz., electrolysis, and there is only one class of people who should practice it, viz., the physicians. I have had many applications from young women who wished to be taught how to operate, but my invariable reply has been that no one but a physician should attempt it. The electrolysis of the bathing establishment, of the advertising dermatologist, and of quacks in general, who know more about extracting money from their victims than they do about extracting hairs, has done much to cast discredit and odium upon a useful method. Any painstaking physician can readily acquire the requisite skill, and then all that is needed is patience, care and good judgment. It is inconsistent with good work to devote more than an hour at a time to a case, removing 50 or 60 hairs, as the work is trying and the operator is ready to stop before the patient wearies.

Several varieties of naevi are removed with greater facility and satisfaction by the electric needle than by other methods. Thus the small nevus araneus, deriving its name from the spider-leg-like appearance of the offshoots, is destroyed sometimes at one sitting by puncturing its central portion and passing for a few seconds a current sufficiently strong to decompose the contained blood and bleach the whole area involved. Telangiectases, which occur later in life, and nevi of limited extent, are removed with equal ease; while quite extensive superficial port wine mark or nevus vinosus may, with time and persistency on the part of both patient and physician, result in a very satisfactory condition. Here very superficial prickings of the needle, while painful, give better results than deeper insertion of the point and longer passage of the current.

Nothing succeeds better than electricity in naevus pilosus, especially those bearing a few stiff, deep rooted hairs. These, I destroy first, making use for this purpose of a greater current strength than in ordinary hirsuties.

The hairs being thus removed, sometimes very little in addition is required. If, however, the mole is large I use a flat-bladed sharp-edged needle, passing it through the base of the growth at the skin just as I do in nevus papillo-matosus, nevus lipomatodes and warty growths in general.

My method here differs from those hitherto advised. The usual instruction is to pass the needle through the growth in various directions, and when sufficient effect has been produced to allow it to shrink up and fall off in the course of a few weeks. This delay in final results led me to employ the flat-bladed needle. Pass-

ed through the entire base of a small growth or through a segment of a large one, the apex being grasped by a mouse-tooth forceps, it is slowly but firmly moved, perhaps with a sawing motion, first through one side and then through the other.

This leaves a level skin surface, usually bloodless, and in many instances is alone sufficient to effect a cure. If, however, the growth appears to penetrate much beneath the skin, or if there is left a central bleeding point or if the margins are not quite leveled off, the point of the needle can be used to puncture and thus destroy the necessary amount of tissue. The less done this way, however, the better, and the less chance of any subsequent scarring.

A case was exhibited of a lady who had upon the cheek just below the right eye a papillomatous pigmented and hairy mole one and a half centimetres in diameter. She was operated on by the flat needle, removing sections by the electrolytic cut at several sittings. The scar was still somewhat red at times, and slightly uneven, but was much less noticeable than a scar after excision with the knife would have been.

The author has also employed electrolysis in elephantiasis, lupus, keloid, acne rosacea, milium, and a variety of other conditions. He believes it to be the very best method of treating xanthelasma of the eyelids. He has been much pleased with the needle as a means of obliterating dilated sebaceous follicles and crypts. In obstinate comedones a three-angled or glovers needle, passed well into follicular canals, may often arrest the reformation of the plug. Upon the nose I have entirely closed up in this way dilated and very annoying follicular openings. Freckles are also removed by a modification of the method.

Med. Record.

Book Reviews.

FOR THE REVIEWER.

Twentieth Century Practice. An international encyclopedia of modern medical science. By leading authorities of Europe and America. Edited by Thomas L. Stedman, M. D., New York city; in twenty volumes. Volume V, "Diseases of the Skin." New York: William Wood & Company. 1896.

The contributors to this volume are well-known authorities in skin diseases; their respective parts are clearly and practically written, as well as exhaustively.

Beginning with the anatomy of the skin, the text passes at once to parasitic affections, by Dr. Bulkley, of New York. Erythematous affections are then taken up by Dr. Whitehouse, also of New York. Eczema and dermatitis follow, by Dr. J. N. Hyde, of Chicago. Squamous and ulcerative affections are treated by Dr. H. Radcliffe Crocker, of London, and the papular, by Dr. L. Brocq, of Paris. Bullous and pustular affections follow, by Dr. Whitehouse.

Dr. Van Harlingen, of Philadelphia, takes up diseases of the sebaceous and sweat glands, and Dr. D. W. Montgomery, of San Francisco, diseases of the hair and nails. Benign Neoplasms is the subject of Dr. Bowen, of Boston, and Xeroderma Pigmentosum that of Dr. Moriz. Dermato neuroses is treated by H. Leloir, of Lille, which winds up the volume.

It is impossible to give an accurate description of the value of this volume to the medical practitioner, for we know of no work on skin diseases which so favorably compares with the exhaustive treatises herein contained. While the plates are not

numerous for the size of the work, yet the description is very clear and well-drawn. Practitioners should have this volume of the series, if no other, at least those who are in any way interested in skin diseases, and we believe most every practitioner finds these affections among his most troublesome ones to treat successfully.

VITA SEXUALIS. Zeitschrift zur Erforschung des Geschlechtslebens und zur Ausbreitung des Verstaendnisses fuer die anthropologischen, kriminellen und hygieinischen Seiten des Letzteren. Herausgegeben von Ewald Paul. V. Malende, Verlagsbunchnhandlung, Leipzig, Thalstrasse 5.

The first numbers of the above periodical have just come to hand. It is not very difficult to form a conception of the purpose and aim of this newcomer in the world of journalism, for the principal part of the reading matter has reference to the great economy in midwifery fees to be procured by the use of "pessaria occlusiva." and their recent modifications and improvements over the old-fashioned and oft-times rotten devices patented by the late Captain Condom, R. N.

Other highly edifying articles on the use of a new "hose supporter" in the form of a spiral spring that should be so placed as to reinforce that portion, between toe and heel, that is most liable to weakness from advancing age or retreating youth, may be found in every number.

The February and latest number of this exceptionally erudite journal contains a most learned dissertation upon the dangers of criminal abor-

tion and the most approved method of performing the same.

The "masters" most referred to by the writers of these articles are v. Krafft-Ebing and A. Tardieu, both of whom, no doubt, would feel highly flattered at the honor shown them.

Onanism, its rapid and certain cure by hydrotherapeutic measures, and occasional, "accidental" mention of a certain water-cure sanatorium wind up the reading matter, while the advertisements are on a par with the text.

CHANDLER.

DONT'S FOR CONSUMPTION. By C. W. Ingraham, M. D., Binghamton, N. Y. 1896.

This work is intended for physicians and consumptives, to instruct them in preventive treatment. There are many valuable points, which we observe, in respect to cleanliness both for the patient and his surroundings. The book is based upon the dicta of many of the Health Boards in respect to the contagious element in consumption. We have yet to see a case where clinically we could say direct contagion has produced phthisis in the human being, but agree that, theoretically, the possibility may exist, the victim from heredity or other cause, being in

what we have termed a pretubercular condition upon which the development of the bacillus within the body only depends.

Dr. Ingraham rightly advocates the rest treatment in certain cases of pulmonary consumption and his book should have a ready sale on its merits alone.

SYRUP OF HYDRIODIC ACID. By R. W. Gardner, New York. Thirteenth edition. 1896.

CHEMICALLY PURE HYPOPHOSPHITES. By R. W. Gardner, 156 William St., New York. Thirteenth Edition. 1896.

These two brochures are combined in one volume, and follow the usual order of the previous editions. Dr. Gardner is recognized as the pioneer in the preparation of that difficult combination known as syrup of hydriodic acid, i. e., iodide of hydrogen and non-irritant iodine; a most valuable alterative. As to hypophosphites it is well known that there is nothing so valuable in the treatment of the early stages of phthisis as the chemically pure syrup. Dr. Chunhill's views are brought out as in previous editions, and much valuable data added. We believe this book can be obtained free by application to Dr. Gardner.

THE SENSORY NERVOUS SYSTEM IN DIAGNOSIS. THE REFLEXES. A Contribution for College Students. By Charles H. Hughes, M. D. Reprint from *Alienist and Neurologist*, January, 1896.

MOVABLE KIDNEY. By Charles P. Noble, M. D., Philadelphia. Reprinted from *Gaillard's Medical Journal*.

TECHNIQUE OF EMPTYING THE UTERUS IN INEVITABLE ABORTION. By Charles P. Noble, M. D. Reprinted from *Codex Medicus*, December, 1895.

NEPHRITIS OF THE NEWLY BORN. By A. Jacobi, M. D., New York. Reprinted from the *New York Medical Journal* for January 18, 1896.

Current Medical Literature.

ULCERATIVE CHANCRIFORM TONSILLITIS.

A crateriform ulcer on one tonsil, with a sloughing base and somewhat indurated edges, has been observed in several cases by Mendel (*Arch. Internat. de Laryngol.*, November and December, 1895). It was accompanied by considerable dysphagia and by slight swelling of the corresponding glands. It gets well in a few days under the action of iodised applications and boric gargles. This affection is apt to be mistaken for primary syphilis, but it is to be distinguished from it by its rapid evolution and the slightness of the glandular enlargement.

—British Med. Jour.

THE BACILLUS OF CHANCROID (VENEREAL ULCER).

Colombini has been working on this subject, and publishes his results in a pamphlet. He finds that the bacillus of Ducrey and the strepto-bacillus of Unna are one and the same organism, characterized by being found in chains, by staining chiefly at the ends and not in the centre, by being decolorized by Gram's or Kuhne's method, by the difficulty of obtaining pure culture since a suitable nutritive medium could not be found, and by the rounded ends of the individual bacilli. The best staining agent was methylene blue. Inoculation into animals was uniformly negative. The bacillus is rarely found in bubonic pus.—B. M.J.

RUPTURE OF GALL BLADDER.

A rare accident occurred in Dorchester recently, by which a young man, 19 years of age, lost his life through rupture of the gall bladder. The victim was seized with violent

vomiting, when, suddenly, sharp pains in the region of the right hypochondrium occurred, increasing in severity until he died in about six hours. On autopsy it was found that the gall bladder had burst into the peritoneal cavity. There was no indication of prior distensions or jaundice, and it seemed to be due simply to the act of vomiting. The case is extremely rare, and occurred in the practice of one of my colleagues.

F. S. Parsons, M. D.

CHLOROSIS.

Meinert is struck by the frequency of anteroptosis in this disease, and regards the essential pathology of the affection as a neurosis dependent upon the descent of the stomach, and consequent irritation of the solar plexus. The frequency of the affection in girls is accounted for by the injurious effects of improper clothing during the period of rapid development. In cases of descent of the other abdominal viscera, high-grade secondary anemias, differing somewhat from chlorosis, are met with, and probably are the result of irritation of other nervous plexuses. In the case of chlorosis the nervous affection leads to disturbance of the blood-making functions in the spleen.

—Gould's Year-Book.

HYPNOTIC VALUE OF TRIONAL IN CHILDREN.

At a recent meeting of the Academy of Medicine Dr. Moncoro stated that, owing to the irregular effects and dangers of other hypnotics, he had been led to use trional. It had succeeded perfectly in the insomnia of the eruptive fevers—measles, scarlatina, variola—and in malaria. The dose employed was three to four grains before bedtime. In tubercu-

lar meningitis it had secured sleep and tranquility, which played a large part in the cure of the patient. In pernicious malarial fever, with much cerebral excitement, eight grains, a half-hour before the paroxysm was expected, procured calm sleep. It seemed of little service in maladies of a painful nature. Children show a peculiar tolerance for trional. Given in warm sweetened milk, between the limits of 3 and 15 grains in the 24 hours, it might be continued several days in succession. In conclusion, trional seemed to be the hypnotic the most prompt to act and the best borne. It is more valuable, because it seems to have a specific action upon the nerves and psychic excitations of toxic origin and those in lesions of the brain and its envelopes.

—Tribune Med., No. 36, 1895, p. 726.

THE GUAIACOL-CARBONATE TREATMENT OF TYPHOID FEVER.

Dr. S. Frankel (Wiener Medizinische Blätter, February 27, 1896), writes editorially on the treatment of typhoid fever and phthisis by Guaiacol-Carbonate as follows:

In the year 1894, Dr. Hoelscher first called attention to the advantages accruing from the use of the neutral carbonic acid ether of guaiacol, guaiacol-carbonate, in the treatment of typhoid fever. He shows more especially that the site of decomposition, therapeutic action, and resorption of the drug is to be found almost exclusively in the small intestine. The fever is not influenced by it when antipyretics are not given; for guaiacol-carbonate has no such action; but the temperature falls with greater rapidity and certainty when guaiacol-carbonate and antipyrin are administered together than when antipyrin is taken alone. He found that there frequently occurred a small fall a few hours after the first dose of 1 to 2 grammes (15 to 30 grains). This was a direct consequence of its local action in the intestines, and was of good prognostic significance. When guaiacol-carbo-

nate was given early it was frequently unnecessary to treat the fever at all, and the disease ran a mild and rapid course. Dr. Seifert proved the non-poisonousness of the combinations of guaiacol and creosote with carbonic acid.

TREATMENT OF LEPROSY.

Although the clinical appearances of leprosy were well known to the physicians of a remote period it is only quite recently that its pathology has been established on a scientific foundation. Bacteriological researches have shown that it is due to a specific micro-organism, and that in many respects it resembles tuberculosis and lupus. Notwithstanding the new light thrown upon the pathology of the disease, however, the therapeutics are still almost as unsatisfactory as before and it is therefore of more than ordinary interest to note the successful results obtained by Dr. Goldschmidt from a new remedy. The patient, a woman presented well marked leprosy lesions over the face, the disease being of nine years duration. Having experimented with iodoform in cases of leprosy, without success, the author noted the use of euprophen, as the most available substitute which was first administered internally. As this proved inefficient, however, he next tried hypodermatic injections of alcoholic and ethereal solutions, but soon discarded them on account of the pain produced, while the injection of oily solutions (euprophen 5.0, olive oil, 95.0 gm.), was also unsatisfactory, because of the difficulty of introducing it into the firm resisting tissues. Finally, it was found that by rubbing the oily solution of euprophen into the leprosy nodules and by application of compresses moistened with the oil, a beneficial influence could be exerted upon the diseased areas. The injections were employed three times daily for a minute at a time, while the compresses were worn at night in form of a mask; a cotton tampon soaked in the oil was also introduced into the left nostril, which was the seat of leprosy infiltration, this be-

ing renewed three times a day, and allowed to remain all night. After about five years treatment with euprophen in this manner a complete cure has been effected which is evidenced by the entire disappearance of the characteristic bacilli, while the leprous lesions have also vanished, leaving the skin somewhat atrophied and discolored in some places. In view of the well defined character of the nodules on the face, it is remarkable how slight were the changes in the structure of the skin left after their disappearance. In Dr. Goldschmidt's opinion, there can be no doubt, but that the cure was obtained by the energetic and prolonged treatment with euprophen, and that its iodine component in the nascent state is chiefly to be attributed to the bactericidal effect of the remedy. At any rate this report of a cure in a disease which has proved so obstinate to therapeutic measures of all kinds should stimulate physicians practicing in countries where leprosy prevails to give this method of treatment a careful and thorough trial.

GLUTOL-SCHLEICH.

(Powdered Formalin-Gelatin.)

In view of the importance of Formalin-Gelatin in the treatment of wounds, as proposed by Dr. C. L. Schleich, and the approval that it has already received in scientific circles, we deem it necessary to call your attention to the following facts:

It is the Formalin-Gelatin of Schering's manufacture only that Dr. Schleich has employed, that is prepared under his supervision, whose satisfactory action he is responsible for. This supervision is absolutely necessary in a new product, so as to insure its efficacy. Only by a continuous clinical control on the living organism by its inventor, can its usefulness be vouched for. We would remind you that it is not a question of mechanical action and chemical disinfection of wounds, but the application of an entirely new principle and method in surgery.

Only the Formalin-Gelatin made by The Chemische Fabrik auf Ac-

tien, formerly E. Schering, Berlin, which they have called "GLUTOL" for convenience sake, has the approval of and bears the name of Dr. Schleich.

HOW TO DIAGNOSTICATE SEXUAL DERANGEMENTS IN THE MALE.

Dr. Eugene Fuller, of New York, has endeavored to impress upon the profession the fact that in the majority of instances sexual derangements in the male were caused by pathological processes in or about the seminal vesicles, and, further, that they accomplished their results by interfering with the mechanism of ejaculation. He called attention also to the fact that this side of the question had been almost wholly neglected by preceding writers on sexual disorders, who had devoted themselves largely to psychological conditions in this connection, the result being that the great majority of the profession associated sexual disturbances with some radical mental defect. Sexual derangements in the male should be diagnostically arranged in four classes: 1. Those dependent on inflammation of the seminal vesicles. 2. Those dependent on neuroses. 3. Those dependent on primary mental disease or degeneration. 4. Those dependent on general malnutrition and debility. The order of this classification corresponded to the frequency with which these different forms of diseases were encountered in practice. In explanation of the first class of cases the writer stated that it was needless to go into details, since he had recently reviewed that subject very fully in a book.

Where inflammation of the seminal vesicles existed, there was generally a previous history of urethral or bladder inflammation, sexual abuse, and the like, all of which were agents tending to produce localized inflammation in the seminal vesicles. The second class of causes either inhibited or excited the sexual centre by means of reflex nervous action. The third class included the different forms of paranoia, in which the sexual sense existed in a perverted form. The

fourth class was a small one. It included individuals, generally young or middle-aged, who made complaint that they were capable of little sexual exertion and that feelings of prostration and exhaustion resulted whenever coitus was attempted.

The writer made some special remarks on the different appearances that the varying grades of inflammation of the seminal vesicles present to the sense of touch, and called attention to the fact that in cases of extensive adjacent inflammation involving both sacs an inexperienced examiner was likely to err in diagnosis, mistaking the condition for hypertrophy or inflammation of the prostate. The author held that to become perfected in the feel of the seminal vesicles the finger needed as much practice as that of the gynecologist did in feeling the ovaries and the tubes. To obtain the necessary practice, he advised the genito-urinary surgeon to make it customary to examine in this manner every male patient coming into the clinic until all normal and pathological conditions could be fully appreciated.

—N. Y. Med. Jour.

CHANCERIFORM ULCERATIVE TONSILITIS.

Besides the classical form, there is another lesion of the tonsils, which the author has observed six times, a kind of tonsillitis of cold evolution, which has been deceptive to the most distinguished syphilographers. The patient experiences on one side of the throat slight dysphagia at times other than deglutition. A few days previously he may have observed a small ulceration on one tonsil. This is circular, with a congestive zone, more or less deep, whitish, and, in fact, a tonsillar sphacelus. The edges are indurated. There are slightly enlarged maxillary glands. There is generally no fever. The ulceration remains stationary a little, then repairs in variable time, not often more than a week. In one of the author's cases it was three weeks. Treatment consists in iodine applications and boric gargles.

The diagnosis might be of tuberculosis or syphilis, and the latter might be tonsillar chancre or gumma. In tonsillar chancre there is great cervical glandular enlargement; in chancreiform tonsillitis adenopathy exists, but is at its minimum, consisting of only two or three slightly-developed glands, rolling under the finger. It lasts only about a week, chancre taking six weeks to develop. Gumma would be preceded by other signs of syphilis, but in doubtful cases the duration of the lesion and efficacy of treatment would settle the diagnosis. The ulcerations of hereditary syphilis are rarely limited to the tonsil. It much resembles a herpetic lesion of which the vesicular stage has been passed unperceived. The author cites six cases.

Moure. Acute ulcerative lacunar tonsillitis.

Joal recorded a case of tonsillar ulceration, which he was inclined to think tubercular. Dr. Thorne thought it to be syphilitic, but Prof. Fournier rejected all idea of syphilis. Probably it was only lacunar ulcerative tonsillitis.

Helme cited Garel's sign—viz., that prolonged dysphagia constitutes the characteristic of syphilis in pharyngeal affections of doubtful diagnosis. When dysphagia lasts more than three weeks it is certainly a syphilitic lesion.

Povet had seen cases resembling those described. They resembled tertiary syphilis, and were all improved under iodide.

Moure: Tonsillar chancre cannot be mistaken. In herpes, too, there is intense dysphagia, rapid evolution and disseminated lesions. It is not so with tertiary lesions, and he believed that the ulcerations described had a lacunar origin.

Martin had been embarrassed with similar cases. Happily the cure of the patient had generally arrived to put an end to his doubts.

Castex: The diagnosis of tonsillar chancre is not always so easy as Moure believes. In epitheliomas with ulceration the differentiation may be very difficult.

—Journal of Laryngology, Dec. '95.

German and Italian

Translated by DR. F. E. CHANDLER.

ON THE IMPORTANCE OF CHINOSOL AS AN ANTISEPTIC.

Doctors Ahlfeld and Vahle, of Leipsic, have made a thorough clinical and bacteriological examination of this new product in the Lying-In-Hospital.

Twelve pupils scrubbed their hands in hot water and soap for five minutes, and used chinisol in solutions of 1-1000, 1-500, and, finally, of 3-100. The fingers were rubbed for three minutes with these solutions.

The hands thus prepared were then dipped in hot sterilized water and kept there for five minutes.

Forty-eight experiments made with these precautionary measures failed in only forty-seven cases, the exception being the pupil who had used the three per cent. solution, who alone had a finger totally free from all.

As chinisol had been claimed to be innocuous when administered internally, the authors made subcutaneous injections of this substance into rabbits.

Small doses of a weak solution caused the animals to weaken and present signs of great malaise. Stronger solutions, employed in the same way, proved lethal.

—Centralbl. f. Gynaek. I. M.

SPONTANEOUS CURE OF A RUPTURED UTERUS.

Dr. Queisner, of Bromberg, reports the following case. A woman, 38 years of age, had always had easy deliveries and gotten out of bed three days post-partum. Author was called the evening of January 18 to the patient and found that she had been in labor 24 hours without there having been any advance.

The next morning the patient said that something in her body had given way. Examination of the womb showed a longitudinal tear of 10 to 12 cm.

The right foot presenting, was replaced in the uterine cavity, delivery followed, and the placenta was detached with the fingers.

The following day the temperature was normal; a fortnight later the woman left her bed. The cause of the rupture of the uterus is not definitely established, but it was probably caused by the strain of lifting a sack of potatoes, the very day her labor pains commenced.

—Der Frauenarzt. I. M.

DIPHTHERIA OF THE EYE CURED BY THE APPLICATION OF WHEY.

Dr. Ewetzki, of Moscow, received in clinic a little girl who had an inflammation of the left eye.

The child was thin, pale, badly nourished, but did not give one the impression of suffering from a severe illness. The upper lid of the left eye was very much swollen, reddish and covered the border of the lower lid. The latter was also slightly swollen and exuded a cloudy liquid.

Turning back the lid revealed a membrane dotted with greyish-green spots. This film could be partially removed. The ocular conjunctiva was somewhat reddened. Membranes extruded from mouth and nose. Bacteriological examination showed bacilli that differed in no respect from those described by Loeffler.

Author treated child with antidiaphtheritic whey; in two months' time the child was completely cured.

In another case reported by the author, a child 3 1/2 years old, had an inflammation of both eyes. In this case it was possible to trace the origin of the affection. A child in the house had just died of laryngeal diphtheria.

It is interesting to note that there was first an inflammation on the hands and was thus communicated to the eyes.

—Wretch.

CHANCRE OF THE CHIN.

Dr. Thibierge mentions a case of this kind and says:

"It is a well known fact that the initial syphilitic lesion may develop at any point on the skin and accessible mucous surfaces. Statistics show that from 7 to 8 per cent. of the primary syphilitic sores are extra-genital." The case in question was a chancre of the chin in a woman 36 years of age. She was ignorant of its origin. Widow for five years, she is sure to have had sexual relations with no one that was affected with any skin disease. As servant in a hotel she had noticed that the sheets of the beds that she made daily were often stained with pus and blood which must have been of genital origin. Possibly some little boil or slight scratch on the chin had opened the way to the syphilitic infection.

Had the patient been a man, we should have considered the possibility of infection by the barber's razor or shaving brush, but in the case before us these must necessarily be left out of consideration.

—Bulletin Medical. I. M.

PRECOCIOUS MENSTRUATION.

In our old friend, the *Indpendance Medicale*, we find the following, translated from the *Medical Record*. Not having seen it noticed, we take the liberty of putting it back into English:

Dr. Woodruff, of Auburn, reports a case of menstruation in a little girl

of six years and two months. Her face and general appearance resembled a girl 14 to 15 years of age. The breasts were full, firm and round; the mons veneris covered with hair; the hymen intact and the uterus normal.

The mother affirmed that the child had menstruated since her second year.

TREATMENT OF ECZEMA WITH STREAMING HOT STEAM.

Dr. E. A. Liberson.

L. observed that a stream of steam, 104-122 degrees F., directed on the affected portion of the skin, will remove the crusts and scales, increase the formation of dermo-cells, aid the absorption of the superficial and deeper enudations of the skin, lessen or entirely cut short pus formations and call forth a strong new tissue formation even in places where chronic inflammation made healing rather difficult. The apparatus which author employed consists of a hermetically closed cylinder, made of heavy brass walls, containing 2-3 glasses, heated at the bottom by a spirit lamp. In the cover of a cylinder are two openings, one for admitting water, which is closed up with a screw cap, and the other for a tube bended in an angle, which is likewise tightly screwed in the cylinder. A rubber tube, half a yard long, is connected to the latter at the free end, a wooden hilt is placed. The end is brought close to the skin, depending to the sensitiveness of the patient from 6-10 inches. This, repeated at first every 1-4, later every 1-2 hour. Instead of pure steam this may be impregnated with various medications.

—Jushno-Russkaia Med. Gazeta, '95, No. 51-52.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

PLACENTA PREVIA.

Demelin (*Archives de Tocol et de Gynec.*, November, 1895) divides hemorrhage from faulty attachment of the placenta into three varieties. In the first labor has not begun. Here, if the flooding has been slight and has ceased, a skilled nurse should be constantly at hand ready with the tampon. When no assistance of this kind is available, the uterus should at once be emptied if the patient be strong with a good pulse. If she be weak from the hemorrhage, and therefore unable to bear so active a measure, the tampon should be introduced, and maintained till the patient is stronger. In about six or eight hours, as a rule, forcible delivery will be safe to perform. In the second class of cases labor has set in, but the cervix is but incompletely dilated. Then in lateral or marginal insertion of the placenta the membranes should simply be well opened if the vertex present, and be well engaged. This maneuver is dangerous if the pelvis be contracted. In breech presentation, well engaged, one foot must be drawn down through the rent in the membranes. In any other presentation, or when the vertex or breech is prevented from coming well down, the dilating bag should be employed after rupture of the membranes, as the presenting part cannot in such a case press strongly enough on the bleeding surface. The tampon may also be needed. In complete placenta previa, when the cervix is not fully dilated, the placenta should be perforated and the cervix dilated with the bags, the fetus being rapidly delivered if the patient be still strong. When she is weak, the pulse failing, the tampon must be applied till she has regained strength. If suddenly the child and the tampon are delivered together, so much the better. There remains the third class of cases. Here labor

has set in, and the cervix is completely dilated. To turn and deliver at once, or to deliver with the forceps if the head be well engaged, is the right course unless the patient be very weak from hemorrhage. In such a case as before dilatation or labor the tampon should be used. The head must be lowered, the extremities bandaged, warmth applied, etc. Rapid delivery must be effected, under either directly the patient has regained sufficient strength.

—British Med. Jour.

PUERPERAL FEVER.

Rapin (*Revue Medicale de la Suisse Romande*, October 20, 1895) denies that there is such a thing as puerperal fever without local lesions. Practically the disease begins as septic endometritis. The acute so-called "unlocalized" form is always rapidly fatal, so that no clear naked-eye changes can be detected in the infected endometrium. In a few slower cases definite pyemic changes are observed; the disease is then rather acute septicemia or pyemia than fever. The chronic "unlocalized" form of puerperal fever is much milder; most cases of recovery belong to this type. The endometrium is always inflamed and septic, but the inflammatory process is locally mild, passing off before general symptoms are observed. The fever is due to intoxication, not infection. Toxins develop in the inflamed mucosa and pass into the blood. Microbes, Rapin insists, may enter the blood, but they are destroyed by phagocytosis or by the bactericide action of the blood, in this form of fever. Thus chronic puerperal fever, "without localization," is really chronic septic puerperal endometritis, the general rapidly replacing the local symptoms. The importance of the early use of the curette becomes evident.

—British Med. Jour.

PREGNANCY AND EXOPHTHALMIC GOITRE.

Signier (*Repertoire universel d'Obstetrique et de Gynecologie*, June 25, 1895) reports a case in which exophthalmic goitre began with a pregnancy, the symptoms ameliorating after delivery. He believes that the pregnancy was really the cause of the enlargement of the thyroid gland. Possibly the diminution in its size after parturition depended on some temporary condition in connection with the puerperium. Even so simple a cause as the necessary rest may explain the favorable change, which, after all, may not prove permanent.

—Univ. Med. Magazine.

STRYCHNINE IN PREGNANCY.

Olenyn (*Protocol of the Medical Society of Tombow for 1894*) has successfully used strychnine in 16 cases for the correction of weak labor pains in doses of 1-32 to 1-25 grain twice daily, at intervals, during the last six or eight weeks of pregnancy. Four of these cases were anemic primiparae from 19 to 23 years of age with weak muscles; three were multiparae under 30 years, with habitual weak labor pains; four suffered from chronic metritis and had been pregnant at intervals of from three to twelve years; one patient had a small uterine fibroid; two had flabby uterus and relaxed abdominal walls; one had tertiary syphilis and general debility, and another diseased appendages with hysteria. In two primiparae the forceps had to be used, and in one the child was dead; but in all the other cases delivery was rapid and regular and the children lived. The third stage lasted from ten to twenty minutes and post-partum contraction of the uterus was excellent.

—Univ. Med. Magazine.

VAGINAL INCISION AND DRAINAGE.

Long (*Int. Jour. of Surg.*, January, 1896), in citing the reasons for preferring the vaginal route, says:

1. Vaginal drainage is ideal drainage. Does the vagina not carry away the waste of each monthly period

and puerperium? The very structure of its epithelial lining, many-layered and resistant, makes it specially suitable for a drainage canal; the vaginal incision taps the septic focus at its base; the drainage is downhill; gravity aids capillarity; there is no coffee pot spout arrangement that requires to be sucked out with a long nozzle syringe at stated intervals.

2. There is less danger of further infections. To drain septic matter through the abdomen is always hazardous, no matter how careful your aseptic precautions.

3. The operation per vaginam is much easier to do.

4. There being little shock attending the operation, it may be done when the patient is in extremis.

He has performed this operation when the patient was too feeble to take anesthetic; it is truly a life-saving operation.

The dangers other than those incident to anesthesia are twofold—

1. Opening a viscus or blood vessel. This can be avoided by care. He always estimates the thickness of the upper part of the recto-vaginal septum by one finger in the rectum and one in the vagina. The median incision, just behind the cervix, very short and just deep enough to go through the vaginal wall, will obviate the danger of opening either viscus or vessel.

2. The second danger is that of opening the peritoneal cavity, thereby infecting the peritoneum. The same care and thorough asepsis will obviate this danger.

The writer has opened the peritoneum, while attempting to open a septic accumulation that was situated laterally, without doing harm.

TRAUMATIC STRICTURE OF THE VAGINA.

Holmes (*Jour. Amer. Med. Asso.*, January 11, 1896) reports the case of a woman, a bride of three days, who consulted him on account of unendurable pain at first attempt at coition. In her girlhood patient had fallen on a picket fence and injured the vagina and bladder, but she be-

lieved she had entirely recovered from this injury. Bloating somewhat at menstrual period but had no pain; always a rather long flow, sometimes lasting six or eight days. Clots were never seen. There had always been some leucorrhea. On examination the vagina was found closed just beyond the remnants of the hymen. A large tumor could be felt through the rectum about an inch and a half behind the stricture, and still further back the tumor verged into the uterus. The tumor was evidently cystic. Pressure upon it did not cause any discharge of its contents into the organ, and was not painful. The case was pronounced one of stricture of the vagina, with dilatation of posterior portion by discharge from the uterus.

Operation confirmed the diagnosis. About six ounces of pus-like fluid were discharged from the cyst when it was opened.

BACTERIOLOGICAL EXAMINATION OF THE FEMALE GENITAL SECRETIONS IN PREGNANCY AND THE PUERPERIUM.

Max Walthard (Arch. f. Gyn., 48 Band 2 Heft.) The results of the author's investigations are summarized in the following conclusions:

The vaginal secretions of untouched pregnancy contain not infrequently puerperal germs, viz, streptococci, staphylococci, gonococci, and bacteria coli. In 27 per cent. streptococci were found which could not be distinguished from the streptococci of the puerperium, except that they lacked virulence.

Of 100 cases in which the vaginal secretions were examined, in only 14 were Doderlein's observations confirmed. Acidity of the vaginal secretions does not exclude the presence of streptococci in condition to take on active development.

Fifty examinations of pregnant cases showed that the pure mucus of the cervical canal is not a culture medium favorable to the growth of bacteria. It acts in some degree as a bar to the bacterial invasion of the uterine cavity. The limit between

the bacteria-free and bacteria-containing part of the genital tract in a pregnant woman is found in the cervical canal.

Implantation of the morphological elements of the vaginal secretion in the otherwise germ-free cervix by manual exploration is possible, and in all examinations carried above the os externum without previous vaginal disinfection is probable. The germ contents of the vagina are diminished, but never wholly abolished by the flow of waters after rupture of the membranes.

The vaginal micro-organisms do not spontaneously invade the uterine cavity during the puerperium. The uterine infection occurs during labor. The dangers of high examinations (above the os uteri) are obvious.

The virulence of streptococci is not increased by cultures in liquor amnii. The innocuous vaginal streptococci acquired some degree of virulence in cultures made in lochia, but none to the extent observed in fresh streptococci from phlegmon or from the lochia of puerperal fever. The vaginal streptococci act as saprophytes (without virulence) causing simple resorption fever.

The vaginal streptococci can, like the intestinal streptococci, attain a parasitic character, if the resistance of the tissues in which they are found is lowered. The degree of virulence which the original streptococci then may attain, may equal that of the puerperal streptococci. Puerperal fever caused by vaginal streptococci is therefore to be excluded from the pathology of childbed.

The occurrence of puerperal fever (pure toxemia resorption fever) caused by vaginal streptococci of a saprophytic nature is to be avoided by preventing intrauterine infection, a danger always present in manual and instrumental operations.

The existence of puerperal fever caused by the virulent growth of vaginal streptococci in damaged tissue can be prevented, if in all difficult labors the vagina is thoroughly disinfected.

A prophylactic disinfection of the vagina during labor is indicated in

all cases before examination or operative interference above the os externum, in all irregular births, in all diseases which impair the general resisting powers, such as nephritis, uncompensated heart lesions, syphilis, diabetes, anemia, etc.

Brooklyn Med. Journal.

RADICAL RELIEF OF UTERINE FLEXIONS.

As an entirely new operation for the cure of flexions of the uterus, Nourse suggests the following, which seems to present many valuable features: The patient is prepared for the operation in the customary manner, by the proper use of iodine, resorcin, hot water injections, boroglyceride tampons, and gentle efforts are made to free adhesions if they exist, and at the same time to replace the organ. If endometritis be present, the cervix should be dilated and the curette used, followed by iodoform gauze packing. Firm adhesions, which will not yield by the milder methods, can be freed by some of the more radical procedures, such as laid down by Schultze and others. The uterus and surrounding structures being fully prepared, the operation is done as follows: The patient is placed in the dorsal position, with thighs flexed as usual. The vagina and cervix are made sterile, and a self-retaining speculum introduced; the author uses a piece of lead pipe worked into a proper shape, which he finds answers nicely. The anterior lip is grasped and threaded, and the posterior seized with forceps; the cervix is drawn as near to the outside as possible; the cervix is then split transversely, and the incision carried as near to the angle of flexion as possible. If hemorrhage is severe, the bleeding points must be secured; the circular arteries will usually be cut, but this does no damage to nutrition, as they anastomose freely with both the uterine and vaginal. The sound is next introduced with its concavity looking downward, until it reaches the fundus; the sound is now made to revolve half way upon itself, and at the same time the

handle is given a circular sweep in a direction that will tend to throw the fundus into its proper place and overcome the flexion. While the manipulation is taking place, traction should be made upon the anterior lip, which will greatly facilitate the above procedure, and at the same time put it on the stretch, so that when the lips are properly secured the fundus will be prevented from dropping back into its abnormal position. A double volsella forceps is now made to grasp the cervix as a whole, well forward, which will firmly sustain the relation of the lips to each other and prevent the uterus from falling backward and assuming its old crook until the stitches are put in place. During the stitching the sound should remain, and thus prevent closure of the canal, as the needle is made to puncture both lips at once. The stitches should not be removed under two weeks. If the anterior lip of the uterus project too far, it can be amputated. After all operations the vagina should be firmly packed, to both sustain the wound and at the same time prevent secondary hemorrhage. If at any time the uterine arteries are in danger of being cut, this can be avoided by incising the mucous membrane in their vicinity and crowding them out of the way. If adhesions are so firm that they cannot be broken up, operate, and by bringing the cervix into line with the body, straighten the canal, which will admit of free drainage. This operation should not be done in any case where evidence of pus pockets exists in the surrounding structures. Tumors, malignant growths, displaced and badly-adherent ovaries will debar it.

American Journal of Obstetrics.

A NEW POSTURAL METHOD OF TREATING PROLAPSUS OF THE UMBILICAL CORD.

A. Brothers in the course of a paper with the above title, says: The postural treatment for this unfortunate complication was first suggested by Thomas. The woman being placed in the genu-pectoral position, the

body of the uterus tends to sink lower than the cervix, and the replaced cord, owing to the same force of gravity tends to slip down to the fundus and out of harm's way. The position, however, is an arduous one for a woman in labor, particularly if it is to be kept up for any length of time. Over a year ago, while preparing the chapter on prolapse of the cord for the William F. Jenks Prize Essay, it occurred to me that the same result could be obtained in a far simpler manner, and with less discomfort to the patient and attendant, by raising the pelvis to a sufficient height with the woman on the back. At that time I wrote: "Theoretically the Trendelenburg position ought to be followed by the same result." Since that time Dr. Brothers has had three opportunities for testing the efficacy of the method. In the first, an ordinary cane chair was placed upside down at the foot of the bed and covered with a pillow and sheet. The woman was dragged up the incline on her back, so that the pelvis was several feet higher than her head. He now introduced the entire hand into the vagina, pushed the cord very easily into the uterine cavity, ruptured the membranes, and placed a new sponge against the late seat of the prolapsed cord. The presenting foot was next seized and delivered with a good portion of the breech. After some difficulty the second was brought down. As the child was presenting with its abdomen anteriorly—a threatening condition for the child—he seized both feet and rotated the body of the child on its long axis, so as to get the dorsum anteriorly. The chair was now removed and the patient dropped to the level of the bed, so as to facilitate further manipulations. In each of the other two cases Dr. Brothers elevated the pelvis by making use of the footpiece of the bed, which was about 18 inches above the plane of the bed proper, an incline being then quickly made with a washboard and an ordinary piece of board. These were covered with a pillow and the woman drawn up the incline so that the pelvis was elevated.

American Journal of Obstetrics.

CARE OF THE PERINEUM DURING DELIVERY.

Grandin and Jarman, in their excellent new book on Pregnancy, Labor and the Puerperal State, say that the teaching of "support of the perineum" has been of great harm as regards the maintenance of the integrity of the maternal soft parts. It is not the perineum which needs the support. It is the head which must be delayed in its progress until the muscular structures have relaxed, as they inevitably must unless diseased, and extension must be prevented until the proper diameter of the head has engaged at the outlet under the pubic arch. If anything is to be supported it is the fetal head, and the support given in the line indicated. In the normal case the perineum need not be touched. The authors then direct attention to a plate which shows the index finger in the rectum on the fetal chin, whilst the index and thumb of the other hand are pressing the sinciput downward and backward. By this means advance is delayed and flexion is promoted until the structures have yielded, and until the suboccipital point is engaged under the pubes. This accomplished, the patient is anesthetized momentarily to the surgical degree, and, in the interval between the pains, the head is shelled out over the perineum. * * *

The methods still figured of the "support of the perineum" should serve as warnings what not to do. The thumb applied to the head, and, if need be, the index finger inserted into the rectum, in order to enable the extension to be of the most gradual type, is the proper way to deliver the head, under normal circumstances. Stretching of the muscles of the pelvic floor should be avoided, since such action leads to increase in the action of the uterus and to spasm of the muscular structures of the floor.

Memphis Medical Monthly.

PHYSIOLOGICAL AND SURGICAL MENOPAUSE COMPARED.

Dr. Bloom in comparing two such dissimilar conditions as the natural

and surgical menopause says: The physical menopause is the normal cessation of a function which has fulfilled in the economy of the woman that condition which is necessary for the reproduction of the species; and is brought about by changes of a retrograde character in the uterus, tubes and ovaries.

The physiologic process of involution in the reproductive organs at the climacteric gives rise to the following physical signs which are directly opposite to those that take place at puberty.

The ovaries and fallopian tubes diminish in size and often become obliterated, the cavity of the uterus becomes smaller, the cervix decreases in size and often disappears. The dimensions of the vagina become very much contracted, especially in women who have not borne children and the mammary glands also participate in this atrophy. All these changes leading to the fourth epoch, or that cycle in a woman's life which ends maternity.

How directly opposite is the surgical menopause so far as the natural condition of the individual are concerned. In this form there is not only an abrupt termination of a function which has not fulfilled the period intended by nature, but also a state of the whole system which is not prepared for the absence of so important a phenomenon originally intended to be prolonged until senile changes in associated organs had abolished it.

The symptoms which are noted as belonging to the normal climacteric have their counterpart in the surgical menopause with this difference, that in the latter the symptoms are ten-fold more severe, and seem to be protracted to a much greater degree.

From a study of over 400 cases of hysterectomy, covering a period of six years, the conclusion derived from a comparison between the physiologic and surgical are as follows:

1. That the normal climacteric may be attended by mild or moderately severe symptoms, and that these are usually nervous phenomena.

2. That these symptoms frequently marks others less pronounced; con-

sequently organic disease is often overlooked.

3. As a physiologic condition nearing its end, any discharge over the normal amount demands an immediate examination.

4. An average of two years covers the duration of the usual symptoms attending this change.

5. The average age when menstruation ceases is about 43 years and 8 months, the oldest in the series to complete her menstrual life being 54, the youngest 29; the average menstrual life being 29 years and 3 months.

6. That there is no positive relation between an early puberty and a late menopause.

7. As to the sexual sense of women after the menopause, it is surprising to learn that this life sometimes is not dead at a far advanced age.

Of the surgical form, the nervous phenomena as before noted are ten-fold more severe.

It can be set down as a truth that the nerve-storm is so great in some of these women that something must give way: and if there is a systemic predisposition, we find coincident organic disease very much more frequently than after the natural menopause. It is also observed that these diseases are more frequently lesions of the nervous and vascular systems.

As a rule, disease in this class of women is hard to treat, and yields slowly and unsatisfactorily to all therapeutic measures. Hemorrhage or discharge is less frequent. As to the length of time before these phenomena cease, it can be accurately stated they will invariably be much more protracted, even in some cases covering a period of years.

There appears to be no difference in the sexual life of these women prior to 33 years of age. After this age where hysterectomy has been done, it is notably lessened, and in many cases abolished. In other sexual characteristics there is no difference; the breasts do not lose their shape, they do not become fat, and there is nothing about them to indicate masculinity.

Union Med. Magazine.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

PREHISTORIC TREPHINING.

Mr. D. G. Brunton, writing in *Science*, calls attention to an article by General Von Krahmer in the *Globus*, Bd. lxxvii, No. 11, in which he describes an amulet obtained in 1883 from a neolithic burial in Russia. It was of bone, and on examination proved to have been taken from a human skull. Ten years later the archaeologist Bieilachewski, in exploring a deposit on the banks of the Dnieper, exhumed a human skull from which a precisely similar fragment must have been removed. Careful inspection showed that the trephining had been performed after death, the spot selected for the operation being the right frontal bone. The instrument must have had a sharp cutting edge, but there is evidence of lack of skill in the use of it. The skull must have belonged to a comparatively young person, probably a woman. Such examples are said to be extremely rare in Russia. Among the skulls in the Anthropological Museum of Moscow there is but one showing evidence of ancient trephining, and it is catalogued as coming from the Caucasus. The evidence brought forward by General von Krahmer showing that this operation was occasionally practiced in order to obtain amulets from the parietes of the skull is valuable as illustrating a primitive superstition which prevailed in several widely-separated tribes.

—British Medical Journal.

AN AID TO GENERAL ANESTHESIA.

Gerster has reported in the *Annals of Surgery* the results of observations made with Mayer and Theobald on one hundred cases of anes-

thesia, in which it was found that if a preliminary application of a ten per cent. solution of cocaine were made to the nasal mucous membrane, the distress and oppression felt by the patients during the first part of the anesthesia were considerably diminished. In almost all the cases—excepting those of confirmed alcoholics—there was less reflex irritation manifested than usual. Insensibility occurred more rapidly and more quietly, and with less coughing, straggling and nausea; especially when ether was used. The later stages of anesthesia were also less disturbed than usual by interruptions. In some cases, in from twenty to twenty-five minutes after the first application of the cocaine, a marked acceleration of the pulse-rate and facial pallor was observed, followed by profuse sweating. Gerster believes that the patients suffered less from nausea, vomiting, headache and general malaise, after the anesthetic. Some few patients who did not vomit at all during the first twenty-four hours vomited a good deal on the second and third day. Gerster concludes that, on the whole, in view of the ease and simplicity of the procedure, of the absence of apparent risk, and on account of the undeniable diminution of the trying subjective effects upon the patient caused by the use of cocaine upon the nasal mucous membrane, it deserves extended trial. Anesthetists who read this would do well to make further observations.

REIMPLANTATION OF TEETH AFTER COMPLETE TRAUMATIC DISLOCATION.

My little daughter, aged two years and nine months, fell headlong down the cellar stairs and struck the two

upper middle incisors on the edge of the step, extracting them as completely as if by forceps. The alveolar process of the right tooth was fractured, and the gum lacerated the entire length of the root. We found both teeth lying uninjured on the cellar steps. They were placed in a normal saline solution of tepid temperature. On the arrival of an assistant with chloroform the child was sleeping quietly. Chloroform was administered without the child awakening, and the teeth were placed within their sockets and pressed into position. The gums were cleansed antiseptically and the teeth left in position without further dressing or application. The teeth had been out of the mouth fully one hour. Milk and soft food were administered, and the lacerated edges of the gums cleansed after eating. It is now over four weeks since the teeth were placed, and they are perfectly solid, in good position, and of normal color. The gums are normal in color and consistency, and the appearance of the mouth quite natural. I report this as a successful case of implantation of teeth that had been out of the mouth over an hour, and as another demonstration of chloroform anesthesia during natural sleep.

—E. T. Pettyjohn, M. D., Chicago
Chemical Review, January, 1896.

VENESECTON IN CHLOROFORM POISONING.

In reading the constantly recurring accounts of death from chloroform, I have never noticed that bleeding the patient has been tried. As a rule, in these reports there is no account of a post-mortem examination, but in some I have noticed that the left ventricle is stated to have been empty and the right full. It strikes me that if the engorgement of the right side could be relieved there would be a much greater chance of the patient's recovery; and this can be done by venesection, which, if desired, might be supplemented by galvanism to stimulate the heart's action. No harm, at any rate, would be done by bleeding, as none of the usual remedies have any

beneficial effect, the patient always dying if the pulse ceases before the respiration. I should recommend opening the jugular vein as more directly relieving the heart.

Many years ago, when I was house-surgeon at the Children's Hospital, Shadwell, I noticed that at the post-mortem examinations of children dying from morbus cordis, the right side of the heart was engorged and the left empty, although just before death the child had been pale and not at all cyanotic. I determined to bleed in the next case of impending death from this cause. A few nights later I was called to a child with morbus cordis—I forget the particular form—and found him pale, pulseless, and apparently in extremis. I opened the jugular vein, and with difficulty got the blood to flow, but after a very little blood had come the patient roused up and seemed much relieved; by the next morning he was quite himself again.—F. H. Spooner, *The Lancet* (London).

THE OPERATIVE TREATMENT OF WRY NECK.

Mikulicz (*Centralblatt für Chirurgie*, 1895), being dissatisfied with the results both of subcutaneous and open division of the sterno-mastoid in cases of wry neck, advocates almost the total removal of the contracted muscle, the posterior part of the upper extremity, where it is traversed by the spinal accessory nerve, being left. He has operated upon seventeen cases with success, the only bad results being the disfigurement of the neck caused by the absence of the muscle. Examination of the extirpated muscle in these cases has convinced him that wry neck is the result of a chronic inflammatory condition (*myositis fibrosa*) involving the whole of the sterno-mastoid muscle. This condition he attributes in congenital cases to compression of the muscle during a long, difficult labor than to laceration. The so-called hematomata of the sterno-mastoid sometimes observed in infants is not due to effusion of blood, but to thickening and induration of the inflamed muscle.—*University Med. Mag.*



Miscellany.

PURE BEER.

Beer has been the subject of legislation from a very early time, and, contrary to what many believe, was adulterated in the old days as much as it is now, though in quite a different way. "And you, maister brewer, that groweth to be worth 40,000 pounds by selling of soden water, what subtilty have you in making your beer to spare the malt, and put in the more of the hop to make your drink, be barley ever so cheap, not a whit the stronger, and yet never sell a whit the more measure for money. You can, when you have taken all the harte of the malt away, then clap on store of water ('tis cheap enough) and mash out a turning of small beer like rennish wine; in your conscience how many barrels draw you out of a quart of malt?" So was it written in a curious tract published in 1592. According to those who are supporting by petition Mr. Cuthbert Quilter's endeavors to introduce a Pure Beer bill on the 25th inst., the question, How many barrels draw you out of a quarter of malt? would still be an awkward one for some "maister brewers" to answer. Not, however, because malt is used sparingly, but not at all. Sweet wort may consist of the sugars obtained from certain starches by the hydrolising action of weak boiling acid. The weak saccharine solution may then be fermented and subsequently bittered with anything but hops. The resulting product, therefore, is not a malt liquor or such a wholesome bitter as if it contained hops. In short, it is not beer; no liquor should be described as such that is not brewed exclusively from barley, malt and hops. We trust that the petitioners who are now humbly praying that such a definition may shortly become law will have their petition granted.

—Lancet.

PRELIMINARY PROGRAMME OF THE TENTH ANNUAL MEET- ING OF THE AMERICAN ORTHOPEDIC ASSO- CIATION.

To be held at Buffalo, May 19, 20 and 21, 1896. Dr. John Ridlon, Secretary, 103 State street, Chicago.

The President's Address, by Dr. Royal Whitman, New York. Some practical points in the treatment of Lateral Curvature of the Spine, by Dr. A. B. Judson, New York. Some etiological factors in Lateral Curvature of the Spine, by Dr. E. G. Brackett, Boston. Cases illustrating the absurdity of treating ordinary Lateral Curvature (Scoliosis) by Spinal Supports, by Bernard Roth, F. R. C. S., London. The rationale of Gymnastic Exercise and Pressure Correction in the treatment of Scoliosis, by Dr. L. A. Weigel, Rochester. The rapid cure of Rotary Lateral Curvature of the Spine and other postural deformities by means of thorough development, and corrective exercise with heavy weights, with a demonstration of the method, by Dr. Jacob Teschner, New York. A simple and efficient brace for Lateral Curvature, by Dr. S. L. McCurdy, Pittsburg. Congenital Misplacement of the Femur anteriorly, by Dr. DeForrest Willard, Philadelphia. Further remarks on Congenital Dislocation of the Hip, by Bernard E. Brodhurst, F. R. C. S., London. Report of a case of double Congenital Dislocation of the Hip, treated by the Lorenz method of operation, by Dr. Reginald H. Sayre, New York. The Cure of Congenital Dislocation of the Hip by means of the "functional weighting" method, without open operation, by Dr. Adolf Lorenz, Vienna. Spontaneous Dislocation of the Hip, by Dr. William J. Taylor, Philadelphia. The treatment of Club-Foot—(a) When to commence treatment and how; (b) the indica-

tions for mechanical treatment; (c) the limitations of mechanical treatment; (e) the indications for operative treatment; (e) results in 343 operations performed by the writer, by Dr. A. M. Phelps, New York. Investigations on Flat-foot, by Dr. E. H. Bradford, Boston. Mechanical Support for Flat-foot, by Dr. John C. Schapps, Brooklyn. The Anterior Transverse Arch of the Foot, by Dr. Joel E. Goldthwait, Boston. Injuries of the Tarsus and the Ankle Joint, by Dr. J. D. Griffith, Kansas City. Subtendinous Exostosis, by Dr. E. G. Brackett, Boston. The mechanical treatment of Ingrown Toe Nail, by Dr. Henry Ling Taylor, New York. The operative treatment of Paralytic Deformities of the Foot with particular reference to Arthrodesis, by Dr. V. P. Gibney, New York. Some mechanical problems in the treatment of Pott's disease, by Dr. John C. Schapps, Brooklyn. The operative treatment of threatening abscesses in the high dorsal region, by Dr. E. H. Bradford, Boston. The treatment of Pott's Paraplegia with a report of two cases, by Dr. Le Roy W. Hubbard, New York. Osteomyelitis of the Spine, by Dr. T. Halsted Myers, New York. Suppuration in Joint and Spinal Disease and its relation to Tubercular Meningitis; an Analytical study, by Dr. Samuel Ketch, New York. A study of the action of Iodoform Glycerine in tubercular osteomyelitis, by Dr. Harry M. Sherman, San Francisco. Joint disease in Infancy, by Dr. Augustus Thorndike, Boston. The use of Dry Heat of high temperature in the treatment of Chronic Joint Affections, by Dr. William E. Wirt, Cleveland. A theory of the Ultimate Etiology of Deformity and its practical application, by Dr. Royal Whitman, New York. The probable cause of the limp in the first and second stage of Hip Joint Disease, by Dr. Harry M. Sherman, San Francisco. Femoral Osteotomy for correction of hip deformity in adults, with a report of cases, by Dr. A. R. Shands, Washington. A report of cases of Osteosarcoma of the Hip, by Dr. Arthur J. Gillette, St. Paul. Division of the

hamstring tendons by the open method for correcting malposition and securing rest in Tubercular Disease of the knee, by Dr. Bernard Bartow, Buffalo. Tuberculosis of the wrist and carpus, by Dr. James E. Moore, Minneapolis. Symptoms and treatment of Slight Knock Knee in children, by Dr. Robert W. Lovett, Boston. Two cases of Dislocation of the Patella treated by operation, by Dr. Joel E. Goldthwait, Boston. Some notes on Spastic Paralysis in children, by Dr. F. S. Coolidge, Chicago. Some recent modifications in the treatment of Congenital Wry Neck, by William Adams, F. R. C. S., London. Contracted Fingers, by Dr. Arthur J. Gillette, St. Paul. Congenital Club Hand, the report of a case treated by operation, by Dr. C. E. Thomson, Scranton. Rare cases from Practice, by Dr. A. J. Steele, St. Louis. A report of some cases of unusual Congenital Deformities, by Dr. John Ridlon, Chicago. Congenital defects of the long bones, a report of cases and operations, by Dr. B. E. McKenzie, Toronto. Deformities of the Humerus due to Rickets, by Dr. Augustus Thorndike, Boston. A report of a Family of Anomalies, by Dr. S. L. McCurdy, Pittsburg. Readers will please prepare abstracts of their papers, in order that the proceedings of the meeting may be satisfactorily reported.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY AND THE AMERICAN MEDICAL ASSOCIATION.

At a business meeting of the Philadelphia County Medical Society, held on April 15, 1896, the following preamble and resolutions were adopted:

"Whereas, The American Medical Association completed its organization and commenced its actual existence in the city of Philadelphia during the first week of May, 1847;

"Resolved, That a committee of three be appointed by the chair to publicly urge that the association celebrate in 1897 its fiftieth annual

meeting with ceremonies appropriate to its long and successful career.

"Resolved, That the delegates of the Philadelphia County Medical Association at Atlanta be instructed to extend to the association a cordial invitation to hold its semi-centennial meeting in Philadelphia, the city of its birth."

Accordingly, the president of the society, Dr. J. C. Wilson, Dr. John B. Roberts, and Dr. W. M. Welch were constituted a committee to effect the purposes of the resolutions.

GIFT OF \$100,000 TO HARVARD.

A prominent Boston merchant, who declines to have his name published, has given \$100,000 to Harvard University to establish a new department—that of comparative pathology. The value of the gift is augmented by the fact that this will be the first establishment of a professorship of comparative pathology in any of the great universities of America.

The professor is to be a member of the medical faculty of Harvard College, and is to study the conditions and causes of disease in both men and animals, and the means of avoiding and curing disease. He is to devote himself to the duties of his professorship, without engaging, as a rule, in private practice.

ABDOMINAL SECTION IN A CHILD NINE MONTHS OLD FOR OBSTRUCTION OF THE BOWELS; RECOVERY.

For twenty-nine hours before the operator saw the patient there had been no movement of the bowels, and the child had vomited. The lower bowel was easily washed out and inflated, and the tumor which was easily made out in the right iliac region, was reduced about one-half. Not being able to reduce the tumor completely by the various means tried, abdominal section was done. The invagination had taken place at the ileo-cecal region. Slight adhesion had formed, but reduction without laceration of the parts was

possible. The child made a good recovery.

—British Med. Journal.

REWARD FOR THE DISCOVERY OF A CURE FOR TUBERCULOSIS.

It is said that Mme. Audriffred has given to the Paris Academy of Medicine a sum equivalent to \$160,000, on condition that the same be securely invested and the income be paid yearly to the man who discovers a specific remedy for consumption, whether Frenchman or a foreigner, when it can be definitely decided that such a remedy has been discovered.

RESUSCITATION FROM CHLOROFORM.

Is effected by the Konig-Maas method as follows: The operator, standing on the left side of the patient and facing him, places the ball of the thumb of the opened right hand upon the patient's chest, at a point between the apex beat and the sternum. He then repeatedly presses in the thoracic wall with a quick, strong movement, at the rate of thirty to one hundred and twenty times to the minute. The efficacy of the method lies in its direct action on the heart, restoring not the respiration only, but the circulation also. If on a fresh cadaver the precordium be quickly and forcibly compressed, it is easy to detect a distinct pulse wave in the carotid arteries; and the pupils will be found to contract as the blood fills the capillaries of the iris. —Sanitary Era.

HOW THE COUNTRY BOYS MANAGE.

Scene first, country schoolroom.—Young lady teacher—"Tommy, you had better go out and wash your face." Scene second, the room two minutes and a half later.—Young lady teacher—"Tommy, you've washed your face pretty well, but you've not wiped it very nicely; your forehead is all wet."

Tommy (loudly, being aggrieved at unappreciated efforts)—"Wiped it as high as my shirt 'ud reach!"

A NEW RUBBER FOOT.

An improvement has been made recently in artificial feet which seems to leave nothing more to do in order to produce as nearly a perfect counterfeit of the natural member as it is possible for human ingenuity to secure.

The original rubber foot with stiff ankle joints was a vast improvement over the old style of wooden foot with articulating joints. The rubber reduces the shock and gives an elasticity of movement, while the absence of the ankle joint removes the old clanking and the uncertainty of movement incident to this mechanism.

Subsequently Mr. A. A. Marks, the original inventor of rubber feet, introduced an improvement which while very simple was of great value. It consisted simply of a longitudinal canvas, inserted from heel to toe near the bottom of the foot, the result of which was that the toe was drawn back to place and kept from mashing or turning up. This foot with the canvas brace was the standard for 15 years, but is now superseded by what seems to be the best possible change that can be made for the better.

The new invention consists of the insertion of a mattress of canvas in which is imbedded side by side a layer of narrow, flat, steel springs. The canvas holds them in the pocket, in which they slide freely, and the ends are capped with metal to prevent their perforating the rubber and leaving their proper bed.

The rubber which rests above this mattress is spongy, containing, therefore, a large percentage of air, increasing the lightness and also the flexibility of the foot. Further, just above the posterior end of the mattress in the heel there is a large air chamber so arranged that it cannot burst, and thus preventing the heel from matting or failing in elasticity.

The operation of this steel spring mattress is to throw the toe back as it is bent in walking, and thus to materially assist in locomotion.

This mechanism has been submitted to the most severe mechanical test, and found to be so durable that after being tested equal to 10,000

miles of actual walking it showed no signs of giving way.

By this improvement the foot is also lightened, and now weighs from eight to sixteen ounces less than any other made, varying according to the weight of the person wearing the limb. A. A. Marks, 701 Broadway, N. Y., is the sole proprietor of this artificial foot.

Dr. Francis J. Quinlan has been appointed laryngologist and rhinologist to Saint Vincent's Hospital in New York city.

ILLINOIS CENTRAL HOSPITAL FOR THE INSANE.

I have repeatedly prescribed antikamnia for various neuroses with good effect. Recently prescribed it in a case of croupous enteritis, patient adult, highly nervous, and during continuance of paroxysms, and preceding it, is nervous and hypochondriacal, suffering intense pain. The case is one of long standing, and one where opium was objectionable, because of the tendency toward forming opium habit. However, opium has been used, but the effect of antikamnia has been more magical, more persistent, and followed by no digestive disturbance, as has been the case when opium was used.

My directions have been to use antikamnia whenever a paroxysm occurs. Have also found it invincible in protracted neuralgia.

FRANK P. NORBURY, M. D.
Jacksonville, Ills., September 19, 1891.]

CATARRH.

Chronic catarrh of the mucous membrane is often relieved by alkaline diuretics.

SENNÁ.

This drug is valuable in the incontinence of urine of locomotor ataxia.

Dr. Cantrell advises the use of lactic acid for the removal of the so-called venereal warts, and in making this remark he stated that it did not matter in what position they were found.—Phila. Polyclinic.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

MERCURY THYMOLATE.—Colorless or reddish powder, odorless or with faint thymol odor.

MERCURY THYMOLACETATE.—Colorless crystals, insoluble in water. Antisyphilitic. Intra-muscular injection 1-12 to 1-2 gr., also in pill.

METHACETIN. (Para-acetanisidine-Para-oxymethyl-acetanilid.)—Lustrous, colorless, or reddish, odorless scales. Almost insoluble in cold water; readily soluble in hot water, A., C., glycerine and fatty oils. Antipyretic, principally in children. Dose for children 2 to 4 grs.

METHOZINE.—Synonym for antipyrine.

METHYL CHLORIDE.—Gas at ordinary temperatures; tubes of the gas liquefied under pressure are used. The nozzle of the tube being opened the fine stream that issues is directed against a tampon of wool or cotton covering the area to be anesthetized (Sciatica, lumbago, intercostal neuralgia and minor surgery.)

METHYLAL. (Methylene-dimethyl-ether.)—Limpid, colorless liquid, with penetrating ethereal odor. Soluble in water, A., E., oils. Not inflammable. Local anesthetic hypnotic, sedative. Dose, 60 to 75 mins. in syrup. Locally as liniment (1 to 6 in olive oil.)

METHYLENE BLUE. (Tetra-methylthionine chloride.)—An aniline derivative. The medicinal is free from the zinc present in the commercial dye. Small blue-bronze, scaly crystals, slightly soluble in water. Analgesic, anodyne (neuralgia, rheumatism). Antiperiodic (malaria). Dose, 1 to 4 grs. 5 times daily in capsules. Hyp. inj. 1 gr.

METHYLENE CHLORIDE. (Dichloromethane.)—Colorless liquid, resembling chloroform in odor and solubilities, though rather more inflammable. Substitute for chloroform, but less safe; also as spray for local anesthesia. (Do not confound with "English methylene chloride," or "methylene," which is a mixture of ethyl ether and methylene chloride. A mixture of chloroform and methyl chloride has also been known in commerce as mythylene chloride.)

MICROCIDIN. (Sodium Beta-naphtholate.)—Whitish powder, soluble in 3 W. Antiseptic (wounds, ozena, rhinitis, etc., 0.3 to 0.5 per cent. aqueous solution.) Antipyretic.

MIGRANIN. (Citrate of Caffeine and Antipyrine.)—Caffeine, 8.2, antipyrine, 89.4, citric acid, 0.56 per cent. Analgesic, antineuralgic, specific in migraine. Dose, 17 grs., repeat if necessary in two hours.

MOLLIN.—Super fatted soap with 17 per cent. of excess of fat.

MORPHINE BORATE, and also the phthalate have been recommended for subcutaneous injection.

MORRHODOL.—Alcohol extract of cod liver oil; brownish yellow, oily liquid; bitter, acrid taste. Same uses as cod liver oil. Dose, 5 to 15 min., in capsules.

MUAWIN.—Glucoside from the muawi tree of Mozambique. The action resembles that of digitalin.

MYDRIN.—Mixture of the alkaloids ephedrin and homatropin; white powder, soluble in W. Rapid mydriatic in ophthalmology.

NAPELLINE.—From aconitum napellus, white powder, soluble in water, A., E. Anodyne, analgesic. (Neuralgia, rheumatism, etc.) Dose, 1-8 to 1-2 gr.

NAPHTHOL CARBOXYLIC ACID.

—Colorless crystals, sparingly soluble in water, but soluble in alcohol and alkalis. Antiseptic and disinfectant useful in scabies and analogous troubles. In solution about 1-2 or one per cent. is used; 10 per cent. ointments are employed.

NAPHTHOL, ALPHA.—White or reddish prisms, disagreeable to the taste; soluble in A., E., hot water, slightly so in cold water. Antiseptic, chiefly used in the arts. Recrystallized.

NAPHTHOL, ARISTOL. (Di-iodo-beta-naphthol.)—Recommended as an antiseptic. Has attracted but little attention.

NAPHTHOL BETA.—White or yellowish scales. Readily soluble in A., E., C., B., oils and alkalies, sparingly so in water. Antiseptic, antifermentative. Cutaneous, parasitic affections (scabies, tinea tonsurans, etc.) Applied in 2 to 10 per cent. ointment or solution. Dose, 3 to 8 grs. Preservative for anatomical preparations.

NAPHTHOL, CARBOXYLIC ACID. (Alpha or Beta) Oxynaphthoic Acid.)—Colorless acicular crystals. Sparingly soluble in water, soluble in 10 A., and alkalies. Antiseptic, disinfectant. Applied in 1-2 to 1 per cent. solution (scabies, etc.), or 10 per cent. ointment.

NARCEINE HYDROCHLORATE.—Shining crystals, difficulty soluble in water, easily in A. Hypnotic, anodyne, sedative. Dose, 1-8 to 1 gr.

NEURODIN. (Acetyl-para-oxy-phenyl-Urethane.)—Colorless, odorless crystals, slightly soluble in cold water, easily in hot water. Antipyretic (typhoid fever, scarlatina, etc.), analgesic (neuralgia, migraine, etc.). Dose, 8 to 25 grs.

NOSOPHENE. (Tetra-iodo-phenolphthalein.)—Yellow, odorless, tasteless powder. Insoluble in W., soluble in E., C. Forms soluble salts with bases. Contains 60 per cent. iodine. Non-toxic locally in ozena, etc.

NUCLEIN.—An extract of calf's milk, yellowish white powder, solu-

ble in alkaline fluids. Diagnostic for tuberculosis. Dose, 30 to 45 grs. per or half that subcutaneously.

OLEO-CREOSOTE.—Combination of beechwood creosote with oleic acid. Straw colored oily liquid containing 35 per cent. combined creosote, same indications as creosote and said to be borne better in large doses. Dose, 3-4 to 21-2 drachms daily. Also subcutaneously.

OLEO-GUAIACOL.—Combination of guaiacol with oleic acid. Same indications as guaiacol.

OLEITE.—Jelly-like ointment base formed by the action of sulphuric acid on castor oil.

OREXIN. (Phenyl-dihydro-chinazolinone.)—Originally the hydrochloride was used, but the pure base is now put up as orexin. Appetizer in phthisis, chlorosis, cardiac diseases, nausea of pregnancy, etc., and after major surgical operations, in absence of gastric disease. Dose, 4 grs. 3 times daily in wafers in draught of bouillon.

ORTHO-CRESOL.—See Trikresol.

OUABAIN.—Glucoside from the wood of *Acocanthera ouabaio*, also from the seed of *Strophanthus glabrus*. White, odorless, feebly bitter crystals, slightly soluble in cold water. Sedative (whooping-cough). Dose, for children, 1-1000 gr. every 3 hours.

OXYTOLUIC ACIDS.—See Acids, creosotic.

PAPAIN.—Digestive ferment from *Carica papaya*. Amorphous, whitish powder. Internally as an aid to digestion, externally in the removal of the false membranes of croup, tenicide, etc. Dose, 11-2 to 8 grs. in pill, powder, wine or syrup.

PAPAYERINE HYDROCHLORIDE.—From opium. Intestinal sedative (diarrhea of young children), 1-12 to 3-4 gr. 3 times a day.

PAPOID.—Digestive ferment from *Carica papaya*. White powder. Internally as an aid to digestion (dyspepsia, etc.), externally to remove false membranes (croup, diphtheria) and diseased tissue. Dose, 11-2 to 8 grs.

(To be Continued.)

Prescriptions.

FOR ACUTE CORYZA.

R. Chloralisgr. x
Olei ricinif dr iv.

Sig. Apply to the cleansed nasal mucous membrane.

—Pract.

PURULENT OPHTHALMIA.

R. Hydrastis sulphatis.
Acidi borici,
Sodii biboratis.....aa gr. v
Tinct. opii deodor.....oz ss
Aque destoz. j.

To be used as a collyrium from the beginning.

—Scott, Medical Times.

CANNABIS INDICA FOR ITCHING.

Mackenzie declares Indian hemp will give relief in the itching of skin disease not amenable to local treatment. The full effect of the drug must be produced promptly. He employs the tincture in doses of five or ten drops on sugar, repeated as often as is necessary.

—Am. Pract.

SOLVENT FOR SORDES.

Dr. MacGregor recommends:

R. Boric acidgr. xxx
Potassium chlorategr. xx
Lemon juicedr. v
Glycerinedr. 3 iij.

When the teeth are well rubbed with this the sordes easily and quickly become detached; little harm will follow from the acid present. The boric acid attacks the masses of bacilli and bacteria, and the chlorate of potassium cools and soothes the membrane; the glycerine and lemon moisten the parts and aid the salivary secretion.

—British Medical Journal.

CHRONIC RHEUMATISM.

R. Liniment aconiti.
Liniment belladonnæ..aa dr. ii.
Glyceriniad oz. ii.

Sig. Apply over the seat of pain.

—Fothergill.

ALOPECIA.

R. Ext. pilocarpi (fluid)....oz. i.
Tinct. canthardisoz. ss
Lin. Saponisad. oz. iv.

Sig. Rub into the scalp daily.

—Bartholow.

DANGERS OF COCAINE.

Dr. De Havilland Hall recommends the addition of resorcin to cocaine solutions for application to mucous surfaces. He finds it counteracts the poisonous effects of the cocaine and ensures the keeping properties of the solution. He usually employs a solution containing twenty per cent. cocaine and ten per cent. resorcin, and applies it by means of a piece of absorbent wool, never by spray.

—Brit. Med. Journ.

MALARIAL HEMATURIA.

Keeping the bowels open with calomel, followed by salts, Dr. J. E. Long, of Abbeville, Ala., uses hot mustard baths and administers the following combinations in alternation every three hours:

R. Spirit turpentdr. ij.
Acidi carbolgr. x.
Pot. chloratdr. iij.
Spirit lav. comp.....dr. ij.
Acacia gumdr. iij.
Aqua menth. pip., q. s. ad. oz. iv.

M. Ft. Sig. Teaspoonful every three hours.

—Louisville Medical Monthly.

BRONCHITIS IN THE AGED.

R. Benzoic acidgr. ivss.
Tannic acidgr. ii¼.

M. For one cachet.

Sig. Take four or five such cachets per diem.

—La Progres Medical.

For pruritis vulvae.

Pure morphine sulfate, 6 grains.
Boric acid.....1½ drams.
Camphor water.....6fluidounces.

Mix.

Apply locally. —Phila Polyclinic.

For Physicians' Wives

DIET AND DIGESTION.

Much cold water should not be drunk during or after a meal. It chills the stomach and prevents proper digestion. The process of digestion can only be carried on at a temperature of about 98.

No man can lay down a rule of guidance for another man's stomach. Every stomach is a law unto itself. There are chronic dyspeptics who digest pork and beans better than any other food.

Foods are divided by chemists and physiologists into three classes: 1. These which supply energy and replace exhausted tissue. 2. Those which supply only energy. 3. Those which only repair wasted tissue.

While digestion is going on there is a much greater flow of blood to the stomach than usual. Some physiologists calculate that ten times as much blood is required during digestion as at any other time.

An unvitiated appetite is the best guide in regard to what is safe to be eaten. A wild animal never makes a mistake in its diet; domesticated animals, in consequence of artificial feeding, may occasionally do so.

Dry bread is much easier of digestion than fresh. It is estimated by physiologists that over 10 per cent. of dry bread undergoes salivary digestion while being masticated, while of fresh bread less than 2 per cent. is thus charged.

Professor Sticker has demonstrated that the presence of saliva in the stomach promotes digestion. The same effect is not produced by water taken with the food. Therefore, the necessity of thoroughly chewing the food.

Meats, eggs and fish are almost the perfection of food. Of themselves they will sustain life for a considerable time, and with the addition of bread and butter, or one or two fruits or vegetables, will do so indefinitely.

A COUGH CURE(?).

How a cough is cured in Kansas may be of interest to all, even if the cure be not imitated. The writer of the paper, while passing his vacation at Manitou, the Mecca of America, was consulted by a vigorous, blue-eyed, light-haired Swedish girl of twenty-six summers, on account of a cough and various nervous disturbances.

The cure was as follows: First of all the lady must reside in the same house with the physician. Then came phosphate of iron, chloride of potash, galvanization of the body, faradization and dilatation (!) of the rectum. There followed galvanization of the solar plexus and of both vagi, nasal sprays, verbascom oil in the ears, and finally excision of the hymen and further dilatations and faradizations as already described, together with regulation of the diet and inhalations of oxygen, and the cure burst in upon this treatment like an avalanche in the mountains of the moon or an earthquake in the Sierra Nevada. A poem by an unnamed writer closes this medical history.

—Medical Age.

CHILDREN'S MEALS.

When children are old enough to go to school they are old enough to be promoted from the milk and grain diet of earlier days. But until they

have attained their growth they should not be allowed the food of adults without careful eliminations. Tea and coffee should not be permitted to them and pastry should be very rarely allowed.

For breakfast children may have fruit, preferably raw, whole grain bread, fresh meat or eggs and milk. Cooked-over meat is not easily digestible. Cold meat may be warmed for breakfast in some way, but it should not be again brought to the boiling, baking or roasting point.

Luncheon should be equally simple and wholesome. It is better, in the case of young children, to serve a midday dinner to them, giving them soup, meat and vegetables, green salad and a light dessert. If it is merely luncheon that is served, it should be somewhat lighter, but still substantial enough to nourish the most active members of society through the afternoon. In the evening light foods are desirable. Clear soup, omelet, toast and cooked fruit form an admirable late dinner or supper for children. They should never be allowed heavy puddings, pies, meats or raw fruits at night.

—N. Y. World.

HOUSECLEANING TACTICS.

When the housekeeper who has cleaned her dwelling from the garret down reaches the first floor she has almost arrived at the end of her trials. She has only to remove a few carpets and rugs, attend to the renovating of a few floors, superintend the cleaning of bric-a-brac and silver, and her spring cleaning work is practically over.

If the rugs need more than a thorough beating and airing, it is wise to send them to the cleaner's. They may be cleaned at home, though the process is a rather tiresome one. If they are disfigured by grease spots, powdered magnesia piled on the stains may prove efficacious. After it has been allowed to remain awhile it should be brushed off. Other stains may be removed by vigorous rubbing with a cloth wet in ammonia and water, but care must

be taken not to soak the fabric itself. If the floor is of hard wood it may be polished brilliantly with a mixture of four ounces of beeswax, a quart of turpentine and a piece of rosin the size of a hickory nut. The beeswax must be cut, the rosin powdered and the two melted together. The turpentine is then stirred in. The polish is applied with a piece of flannel, and the floor then rubbed with dry flannel.

If the wall paper is slightly dingy it can best be restored to freshness by rubbing it with slices of dry bread. If it is quite dirty, chloroform will remove the stains. Chloroform will perform the same kindly service for sofa pillows which are not washable. These, however, should be packed away during the summer, and only those which are amenable to soap and water treatment should be used during the hot weather. Linen and washable silks are the best fabrics for summer pillows.

Scars on furniture may be obliterated or almost so by the use of kerosene, flannel cloths and vigorous rubbing. Upholstered furniture should be brushed with a whisk broom, covered with loose cotton cloths, made the repository of camphor and put away in the garret. Only wicker, cane, wood or matting furniture should be allowed in well-regulated houses during dog days.

China bric-a-brac should be washed in tepid water with castile soap and then rinsed with clear water. Ammonia should not be used, because of its paint-removing qualities.

In the dining room the china closet and the sideboard should be cleared of their loads, shelf by shelf. The china and glass should be washed in hot water in which there is ammonia. Cut glass should be scoured with a coarse brush. Before the contents of the closet are returned to them the shelves should be scrubbed, dried and covered with thin white paper. In the corners borax should be sprinkled as a preventive of water bugs. The inside shelves of the sideboard should be similarly treated.

In the kitchen the summer season should be inaugurated not only by a

scouring of pots and pans and a polishing of ranges and faucets, but by the examination and renovation of the plumbing, if it needs it. The ice chest must be cleaned thoroughly by scrubbing with soap and water, rinsing with hot water to which common soda has been added, final rinsing in clear water, thorough drying and as complete an exposure of all the compartments to the sun as possible.

When surprised by days of unusual warmth before beginning to take a daily supply of ice, there may be some difficulty in keeping the poultry fresh that has been purchased several days before it is used. On receiving the poultry remove the entrails; this should never be delayed a moment longer than is necessary. Then wipe out clean with a towel and flour the inside. A piece of blotting paper on which one or two drops of creosote have been placed is now placed inside the bird, and another piece, similarly scented, is wrapped around it. The bird must then be hung up in dry, cool place.

—New York World.

Polishing cloths such as jewelers use are warranted to keep silver in brilliant condition without the disadvantages of a periodical upheaval of the plate closet. They prevent, moreover, the scratching which the application of powders to the metal usually produces. To make them, boil soft rags in a mixture of fresh milk and hartshorn powder, an ounce of the powder being used to a pint of milk. When they have boiled for five minutes, they should be hastily passed through cold water, so that they will be cool enough to wring out and dried before the fire. After the silver is washed and dried each day, it should be polished with a cloth prepared in this manner.

* * *

Some epicureans declare that cheese should be barred from well-regulated tables during the months when the oyster enjoys its annual vacation. But while April lasts a salad

of lettuce and cream cheese is a delicious luncheon or supper dish. The cream cheese should be colored green with the juice of boiled spinach, then seasoned with pepper and made into balls about the size of a walnut. On a flat, wide dish the hearts of lettuce heads should be formed into nests holding three or four cheese balls each. The salad should be accompanied by mayonnaise dressing.

* * *

It is a waste of time and energy for the woman who does her own scullery work to try to scrape clean scorched and blackened baking dishes and platters. Even rubbing them with dampened salt is a tedious process. If a little ashes and water are placed in the dishes and they are then allowed to heat slowly on the back of the range, they may be easily rubbed into their original state of spotlessness.

BYGONE DAYS.

By Mrs. J. R. Clausen.

How friends oft drift asunder;

And those, who fondly met,
Will, as the years roll o'er us,
Seem often to forget.

A voice, so soft and tender:
The tone so sweet and low;
We thought sure must linger
With us, where'er we go.

That smile, so bright and sunny,
Once a sunbeam on our way;
How many thoughts it awakens,
Of a glad and happy day.

And words of wisdom spoken,
From heart, so fond and true:
That taught us how to lighten
With love the work we do.

Yes, they are parted from us,
And we seem oft to forget:
But in our hearts their memory
Will linger with us yet.

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Original

FIBROID TUMORS OF THE UTERUS, WHEN AND HOW TO OPERATE.

BY ALBERT H. TUTTLE, M. D., S. B., CAMBRIDGE, MASS.

It is but a short time ago an opinion was more or less universally maintained, that fibroid tumors of the uterus were benign growths. The fact that hysterectomy had such a high mortality at that period made the "cure worse than the disease" and probably did much to place these tumors in this relatively false position.

With improvements in technique and correspondingly excellent results in the removal of the uterus, it is no longer necessary or wise to wait until life is in immediate danger before recourse to the radical treatment of fibroids by surgical measures, but before the health of the patient is reduced by hemorrhage, inflammation, chronic suppuration, and pain to a delicate condition, and the dangers of the operation are further increased, as well as the difficulties, by the complications of inflammation—pus and adhesions—to say nothing of the degenerative changes, the in-

crease in the size of the tumor, and the effects of pressure on the ureters, there must be a time when certain indications exist for the truly conservative removal of these growths.

That this period for active surgical interference varies greatly in the opinion of various operators from the radical view of Jacobs, who considers that the presence of a fibroid tumor is in itself sufficient reason for the removal of the uterus, to the conservative extremes of the electro-therapists needs only to be mentioned, and it is this fact that has prompted me to express the conclusions derived from my personal experience in the treatment of these growths.

Small sub-serous tumors, when they give rise to pain and tenderness, interfere with motion and locomotion, produce reflex and nervous disturbances, or directly by pressure, make more or less troublesome the functions of menstruation, defecation and micturition should be re-

moved. They are best extracted through the abdominal route, by enucleation. The peritoneal flaps are sewed together with fine animal sutures and the uterus dropped into place.

Whenever an interstitial fibroid has reached any considerable development or a number of small ones have increased the size of the uterus above that of the fist, the uterus and fibroids should be removed en masse, to prevent changes which sooner or later will surely result from the constant pressure exerted upon the uterus. Baer's supra-vaginal amputation of the uterus is the simplest operation.

Whenever the fibroid condition is complicated by inflammatory changes, either in the growth itself, the pelvic cellular tissue, uterus, tubes or ovaries, a total extirpation should be performed. I know of no better method for the complete removal of the uterus than the vagino-abdominal method, which I have devised and already described. Unless the symptoms are urgent I would recommend a long period of rest and local treatment as a preliminary to surgical treatment (six weeks to two months) as by this means much of the infiltration and subsequent danger of auto-infection will be avoided.

Whenever the common complications of a fibroid tumor, pain, hemorrhage, and serous discharges are uncontrollable, the uterus should be removed. Unless there are extra-uterine complications Baer's supra-vaginal amputation should be preferred.

When a fibroid uterus is complicated with pregnancy, and one or more nodules rapidly increase in size, early interference is demanded. Often the fibroids can be removed without disturbing the contents of the uterus; but an early removal may necessitate killing of the foetus in which case operators will become divided in their course of procedure: some to give the mother the best chance for life will remove uterus and fibroids early, or the contents of the uterus; others will wait until near term and do a Caesarian or Porro's operation, while a few will do nothing until la-

bor sets in, when they will attempt to raise the tumor out of the pelvis so as to admit the passage of the child. Each case demands special consideration; a multi-nodular fibroid uterus is less likely to be disabled to the extent of complete incapacity for performing the function of expulsion of a foetus, and at most make the condition of delivery simply one of inertia uteri; a single fibroid is apt to increase to dimensions sufficiently great for the mechanical obstruction of delivery and at term will nearly always be found in the pelvis or the lower segment of the uterus, a point it has reached from the force of gravity, no matter where the place of origin.

One or more growths of hens'-egg-size may not seriously interfere with full term delivery, but a growth of this dimension in the early months of pregnancy is more than likely to attain dangerous proportions before the time has arrived for the natural expulsion of the child.

If the growths alone are removed a subsequent ventral hernia will usually more or less rapidly follow the final delivery at the site of the abdominal incision, and must be considered among the indications for removal of the foetus.

The danger of sepsis from auto-infection is increased in the abortion of a fibroid uterus.

When a fibroid uterus is complicated with pregnancy, the problem to be solved is not one of comfort or health, but the serious condition of life or death, therefore surgical interference should not take place until a study of the condition of the patient and the relations of the tumor and uterus show clearly to the operator that there are greater chances of life with operation than without.

When failure in health occurs in a woman having a fibroid uterus and no cause for the same can be found unless it be the condition of the uterus, for which the tonic and medicinal methods of treatment are unsuccessful, hystere-tomy, a supra-vaginal amputation, should be performed as a dernier ressort.

THE BICYCLE IN MEDICAL PRACTICE.

BY S. H. MONELL, M. D., BROOKLYN, N. Y.

Fellow of the Academy of Medicine, Member of New York County Medical Society, Kings County Medical Society and New York Electrical Society.

Like Banquo's ghost the wheel question last year would not down, and its tidal wave of popularity at length reached a height which both compelled and justified its recognition and acceptance by the medical profession. It was generally assumed that cycling had some influence upon health, and the consideration of its physiological effects rightly came within the province of the physician. For the majority of practitioners to hold varying and ill-assorted opinions on the subject was not in accord with scientific progress, and the thoroughness with which the wheel was discussed in the medical journals of a year ago established the merits of the case beyond a doubt. No further theoretical argument needs therefore to be advanced, for the bicycle is now recognized as one of the most excellent inventions of modern times. I wish, however, to speak of certain practical aspects of the matter, which have come under my personal observation. In September, 1885, the author sustained a Potts fracture at the left ankle joint with dislocation, and laceration of the ligaments. Six months later the joint was almost completely ankylosed and the leg muscles still greatly reduced in size. Walking was irksome even after crutches were laid aside. Upon attempting to resume cycling the summer following the accident it was found that riding was not only comfortable and easy, but that free movement of the joint, and normal development of the atrophied muscles of the leg rapidly ensued. In a few months no difference could be detected between the injured and normal limb.

In several cases of recent and subacute ankle sprains, where walking has been painful or impossible, I have known the use of the wheel to be not only possible without pain, but to

be grateful to the patient, and seem to hasten recovery of the joint. A painter whose left leg was amputated near the hip joint found that cycling was the only sport into which he could enter for pleasure and exercise. He easily learned to ride in April, 1895, and has no trouble in mounting and dismounting. He is a strong and rapid rider and the wheel is of great service to him in getting about.

In another case known to me a carpenter fell from an elevated table seven years ago, striking the lumbar spine and leaving him a paraplegic. He can yet only stand by the aid of crutches, and in walking, his spastic gait is difficult, laborious and slow. Last year he procured a cycle with two rear wheels, so that it would require no balancing to control it. His feet were held to the pedals by toe clips, his crutches strapped to the frame, and he gradually developed sufficient co-ordination and power in his limbs to ride his wheel slowly and safely wherever he desired. As every complete revolution of his pedal carries him about fifteen feet more easily than his crutches would enable him to hobble three feet the gain is obvious. His general improvement is increasing faster than before, and the wheel is a most grateful friend to this unfortunate man.

A painter, aged about 60, had become in 1893 completely crippled from chronic lead poisoning, suffering both from paralysis, and intense neuralgias. By dint of persistence and efforts that at first were feeble and almost hopelessly discouraging, and by the ingenuity and patient help of two or three faithful friends, he at last succeeded in being able to ride alone. Within a year he was strong enough to resume work and during the past year he has scarcely lost a day on account of his health, and he continues the fixed habit of

riding a few miles daily as a "tonic," besides riding to and from his work.

A member of one of the leading clubs in this vicinity is ataxic from injury, and shuffles in walking, while on the wheel he is an expert rider and frequently takes part in music rides and indoor races.

A patient of mine is subject to attacks of vertigo, often becoming temporarily helpless in the street or house. She never has any vertigo when on the wheel, and for several years has ridden without any attack when cycling.

A case of chronic synovitis of the left knee gives the patient occasional trouble and the joint is easily over-fatigued by walking, but she rides freely from five to twenty miles with entire comfort and employs the wheel from preference in ordinary journeyings about the city. Unless she attempts hill climbing her defective knee does not suffer any inconvenience.

In old cases of sub-involution, chronic congestion, relaxed uterine supports with frequent back ache, sense of heaviness when walking, and constant desire to sit down, the wheel is ridden with comfort and permanent benefit, and is, in fact, a greater boon to women than to men. Such patients are surprised to find that while they dread walking and are reluctant to take ordinary forms of exercise, yet they enjoy cycling and do not hesitate to ride any reasonable distance. I usually feel confident of the result when I recommend cycling to cases of this kind.

It is needless to say, however, that the selection of the wheel should not be left to chance, any more than a surgical splint, brace or truss. In prescribing, for instance, a Model 41, Columbia drop frame bicycle for a female patient it is my custom to also prescribe the proper gear, saddle, etc., and personally see to it that a fit adjustment to the rider is secured. The rear sprocket wheel should have eight teeth, and makers who permit a smaller one to go out for a woman's use impair all other merits of their production. The saddle should be fitted to the front post and tilted up-

wards at the angle of the pelvic contact, say about seven to twelve degrees. "No. 17" is the shop term for the proper Columbia saddle to prescribe with a lady's wheel. If it is put on the post correctly it fits the rider perfectly, and it is one of the best saddles for general use of either men or women. Considerable harm has already been done by the introduction of new and peculiar shaped saddles, but it is well to avoid them. I have tried many and prefer the one mentioned above to many others. Some of the so-called "anatomical" saddles are instruments of torture and the best of the "freaks" is worse than the poorest old-fashioned, time-tried and reliable article. I emphasize this because fictitious advertising claims of superiority mislead many and create dissatisfaction.

There are countless good saddles to be had without experimenting with foolish fallacies.

Insomnia from functional irritability or neurasthenia, and head aches from gastric causes, are also immensely benefited by cycling. A ride in the evening sufficient to produce moderate muscular fatigue will generally ensure a restful and normal night's sleep. I have also prescribed the wheel in lateral curvature of the spine, and in just such cases in anemic, neurotic schoolgirls, no better agency for health could be suggested than the exhilarating, energizing, mind and muscle strengthening, open air exercise of the bicycle. At certain ages also the surplus forces of youth need to have an escape valve rather than be repressed by discipline. Boys can better work out their restless and turbulent propensities on a wheel than in devising schemes under the fraternal tuition of his satanic majesty, as is wont so often to be their custom when hands and feet are idle. Cycling is doing more good in this respect than in any other way, except its benefit to women and sedentary workers.

In a recent address before the Schoolmasters' Association the distinguished president of Columbia, New York's greatest university, made the following remark: "Another

thing a college president should know is how to ride a bicycle. College presidents need exercise. I am not joking. I am serious. I know that some of you ride a wheel because I have met you on the road. One professor told me I had done a good thing in riding a wheel because a number of my professors had followed my example."

Physicians are aware that school teachers need the exercise of the wheel as well as college presidents, and there are more than 360,000 women schoolteachers in the United States. To professional workers in all sedentary occupations the wheel is not a luxury but a necessity.

Lawyers, ministers, writers and doctors, are peculiarly subject to mental tension and nervous irritability, which is restfully relieved by a brisk ride in open air followed by a good night's sleep. To one who rises from his desk with tired eyes and weary brain the first pressure of his feet upon the pedals and turn of his wheel seems at once to divert the nerve forces to the muscular system, and tranquilizes the mind in a very noticeable manner. In cases of dyspepsia, headaches, functional inertia and a host of attendant ills, the bicycle is far superior to massage, walking and all forms of indoor and routine exercises.

All the above examples of the important service of the bicycle to injured or invalid persons have come under my own observation in medical practice. In a medical article of this kind it is needless to speak of the merely agreeable side of riding, of the pleasure of country tours, of the social and congenial companionship of club runs, or of delightful early morning or evening spins when several members of one family ride together; but there is another use of the wheel to which it is of practical moment to refer. As a convenience for the performance of errands, or for responding to hurry calls the bicycle is a miracle of readiness, celerity and economy. I have met more than one rider with a medicine case on his wheel. On many of the clear, crisp days all through last winter one of

the most prominent physicians of this city made his professional calls on his bicycle in preference to his coupe. The doctor's horse and phaeton is, of course, not to be displaced by the present bicycle, but rather supplemented by it, and in many cases perhaps in favorable localities, both horse and wheel will not be required, and the vehicle of greatest economy will be the choice. For swift utility in all weather, except storm, or when the horse is sick or requires rest, or the phaeton is being repaired, or the driver is out of call or otherwise engaged, the cycle that stands ever ready for instant and urgent use is an indispensable equipment for the physician who knows how to ride it. Those who lack this simple accomplishment should promptly acquire it. Where the physician makes his calls at the expense of car fares instead of a coachman, he will save annually many hours in time as well as the cost of his wheel by making a business convenience of it. It has no equal for either long or short distances if the road is good.

There is another advantage not to be lightly regarded by the class of men whose mortality rate is more than ten per cent. above the average. We are not only exposed to dangers ourselves, but we are required to take precautions to avoid carrying contagion from one patient to another. The increase of tissue resistance, of nervous stamina, of physical endurance, of mental equipoise and clearness of mind, of the promotion of healthy functions, and cutaneous elimination brought about by the exercise of the wheel, and the favoring conditions it presents for the dispersal of disease germs in the open air constitute emphatic arguments for its professional use. They are the premium of health upon an economy of cost. Even with the best of horses always at command the bicycle is an auxiliary of permanent value and of great convenience. In my own case I speak from an experience of many years, having ridden many varieties of wheels since the wooden velocipedes of 1868. The question of what wheel to buy has therefore often con-

fronted me during especially the last decade of almost yearly improvements in construction. It is a mistake to buy a spavined horse, but it is not less unsatisfactory to buy a wheel what will fail you at a critical juncture. One experience with a crushed cone, a snapped chain link, a cheap tire, or the deceptive combination called a high grade wheel at a low grade price will be forever sufficient. No medical cyclist can be permanently satisfied with an unreliable instrument in which there is no factor of safety, and upon which he can never depend. Confidence is the prerequisite of satisfaction. So many new riders are now selecting these vehicles for the first time that the lesson of experience as to choice may be appropriately cited. It is this, the best is the most desirable—less than the best is inadmissible.

But it will be asked what is the best wheel? I need not undertake a categorical reply, but am perfectly willing to say for the guidance of readers without cycling experience that the outcome of my own long personal observation has led me to ride a Columbia, my chief reason being confidence in its thorough reliability. It is better judgment to select a well known and admittedly good wheel and rely upon its responsible makers' guarantee than to accept appearances or an untried recommendation and run the risk of disappointing

results. This is my own principal argument, and I require no better.

The history of bicycling for women in this section of the country began in April, 1888, when I was the first to prescribe a bicycle for the health of a prominent society lady, who was the victim of insomnia and "house nerves." Having been a pioneer in advocacy of the modern wheel and having successfully overcome conventional prejudice in the mind of the courageous woman, who eight years ago set this example for her sex, I perhaps feel more than usual interest in the benefits which the bicycle is now conferring upon two or three hundred thousand women in the United States.

I urged and influenced many to ride the bicycle instead of the heavy tricycle, which convention permitted women first; but for a number of years a large proportion of the best friends the bicycle now has were opposed to it as strenuously as if it had unlocked Pandora's box.

The original drop frame safety ridden by the pioneer wheelwoman, of New York State (Dr. F. W. Oakley) had to be obtained from Washington, as none were manufactured anywhere else at the time, this side of England. The Pope Manufacturing Company began the construction of lady's bicycles in 1890, and the spread of the wheel since then is a matter of history.

865 Union street.

HYDATIDIFORM MOLE.

BY F. U. FERGUSON, M. D., GALLITZIN, PA.

I have here a portion of a mole pregnancy consisting of the true placental tissue, about 2 by 2 inches, and a mass of reddish tinted, clear cysts, in size all the way from a millet seed to that of a grape or filbert nut or even larger. I say a portion be-

cause the entire mass almost filled a large chamber pot. The following is a history of the case:

Mrs. R., aged 22, mother of four children, miscarried last May, and, therefore, in her sixth pregnancy was seen first on January 3, supposed to be between three and four months pregnant; pain in lower part of abdomen; pulse rapid; patient generally nervous. She was sent to bed and

(Verbal report at the February meeting of the Cambria County (Pa.) Medical Society.)

sufficient morphine given to quiet the pain; five days later, not being improved, I prescribed tinct. valerian and potassium bromide. She got so much better on this treatment that she came a distance of two and a half miles to town shopping. On January 31 she had pain and a severe hemorrhage. Os would not admit finger. No fetal heart sound. She was again sent to bed with morphine for pain. Discharge continued, more or less, until February 8, when husband reported that she had failed so much that he thought she would not recover.

Large vaginal douches were then ordered twice daily and the husband instructed to call me when pains started.

February 11 I called and found os well dilated and severe labor pain, hemorrhage so great that the bed was saturated and a pool on the floor.

Passing the hand I felt a spongy mass protruding into the vagina and, naturally, thought the case one of placenta previa, and without stopping, began loosening it up at sides and turning it out of the uterus.

When I thought it all out and not finding any fetus, stopping to rest my hand, I was surprised to find it covered with many little cysts, when I recognized it as cystic degeneration of the chorion.

Again passing my hand to the fundus, I curetted the lining of the womb clean with my finger nails.

The patient was then given a drachm of Fl. Ext. Ergot; she reacted well, but the bleeding continued quite freely and the ergot was repeated in an hour. Three and a half days later the patient was doing nicely.

(The after history of the patient looked quite offensive and vagina was douched with hot carbolized water. She picked up rapidly and walks to my office weekly for an application of iodine to the endometrium. The discharge is yet quite free, consisting of bloody mucus. I had appointed a day last week to curette the uterus, but the menses coming on the operation was postponed. The specimen was sent to Prof. W. F. Haehnlen, of the Medico-Chirurgical College.)

VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

Owing to a failure to receive the manuscript in season for this issue, the continuance of Dr. Manley's article will be found in next number.—[Ed.]



Editorial

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BROMOFORM IN WHOOPING-COUGH.

Marfan recalls that three years ago, after a trial of a number of remedies for whooping cough, he expressed the opinion that antipyrin and belladonna were alone worth retaining, and that antipyrin was of the two the more efficacious. He now (Rev. des Mal. de l'Enf., April, 1896) states that he has since found bromoform superior to either. At the beginning of treatment he gives daily four drops of bromoform for each year of the child's life. This is the quantity for the twenty-four hours, and is divided into three doses. For children between five and ten years of age, he begins with twenty drops in the twenty-four hours. For infants under six months, he begins with a daily quantity of two or three drops in three doses. He finds that for the first two or three days there is no improvement, but rather an aggravation; then improvement is manifest both in the number of paroxysms and in their severity. Vomiting

ceases and appetite returns. If this result is not obtained the doses should be increased by two or three drops a day until the amount is doubled. He found it to fail very seldom, but in these cases the subsequent administration of anytipyrin was successful. In only one case did he see any symptoms of general poisoning. There was drowsiness, but not sufficiently marked to lead him to discontinue the remedy. Bromoform is not soluble in water, and Marfan found the alcoholic solution recommended by Stepp objectionable. The prescription he used was bromoform, 48 drops; almond oil, five drachms; gum tragacanth, 1-2 drachm; gum arabic, one drachm; cherry laurel water, one drachm; water to three ounces. The bromoform was first mixed with the oil and well shaken, and the other ingredients added afterwards. One drachm of this mixture contains two drops of bromoform.

ABDOMINAL SECTION IN NEW-BORN INFANTS FOR UMBILICAL HERNIA.

Marjantschik, (*Centralbl. f. Gynak.*, No. 13, 1896) relates an operation upon a female child aged a little over thirty hours. There was a large umbilical hernia. The liver was almost entirely in the sac, and reduction of the intestines proved very difficult. The edges of the abdominal wound were vivified and united by twelve deep and four superficial sutures, the former being passed through all the layers of the parietes. The child took a drachm of chloroform during the fifty-five minutes that the operation lasted. Full antiseptic precautions were taken. The child died on the fifth day. Peritonitis and gastro-colitis were detected. Marjantschik regrets that an enema of ten minims of cognac, and also two drops by the mouth were given on the third day. To this medication, intended as a

stimulant, he attributes the gastro-intestinal inflammation. The spleen was ill-developed. The author tabulates thirty-one cases of abdominal section in new-born infants for hernia funiculi umbilicalis, making thirty-two in all, out of which eight, including his own, died; three died within seven hours, four within five days, one or more of these might have really succumbed to some coincident affection. The eighth (Treves') died of convulsions on the twenty-third day. Out of the twenty-four recoveries, four were reported as cured within a month (one only a fortnight) of the operation; the remainder seem to have been observed for longer space of time before their cases were recorded.

PROLAPSE OF URETHRA IN FEMALE CHILDREN.

Broca (*Annales de Gynec. et d'Obstet.*, March, 1896) examined in February, 1896, a girl, aged 6, who had alarmed her mother through the appearance of blood at the vulva for three days. It was naturally taken for menstruation. The child had been kept in bed for a fortnight, on account of severe bronchitis, with violent coughing. On the day that she got up for the first time, the bleeding began. Broca examined the parts, and noted a little red protuberance at the meatus, caused by prolapse of the urethral mucous membrane. He directed that the everted mucosa should be touched with a two per cent. solution of nitrate of silver. The bleeding ceased permanently after the first application. At the end of three days the cure was complete. Broca lays stress on this case, as it shows the extreme importance of early recognition and early treatment

of this affection. In another case the mother suspected rape. The Court ordered a medical examination, and the truth was at once made evident. Thus the meatus must be carefully explored in all cases where blood is found near a child's genitals. Neglect of treatment leads to complete prolapse, not curable by caustics. Then ligature of the prolapse around a retained catheter, or excision by the cautery are objectionable. No more mucous membrane should be drawn down, else a thrombus may develop in the sub-mucous tissue, and stricture ultimately follow. Again, the upper part of the mucosa should be fixed by passing the sutures through it before the excision, else it will slip up very high and give great trouble. The sutures must be very carefully tied at the end of the operation.

FORTY-SEVENTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

Held in Atlanta, Ga., May 5, 6, 7 and 8, 1896.

(From Special Correspondent of "Medical Times and Register.")

This year, in order to carry out the usual custom of the Association, its convention was held in another remote section of the country, going further south than last year, when it was held just beyond Mason's and Dixon's line.

In the empire city of the South, in Atlanta, the National Association pitched its camp.

In some respects the meeting was a moderate success, while in others it must be conceded to have presented many evidences of failure.

A considerable amount of work was accomplished in the various sections, at which attendance was fairly large.

The hotel accommodations, although the general attendance was unusually light, there having been but 593 registered members, were severely strained and certainly would have been a serious problem if more than 1500, as at Baltimore, had migrated southward to the annual gathering.

Atlanta is a growing, progressive city, but a noisy one, with badly paved sidewalks. The days were very warm, but the evenings cool.

Atlanta maintained the southern reputation for a generous hospitality, but in some of the details of the social festivities everything was not quite satisfactory. For instance, the barbecue, which might have been a noted success, did not give the satisfaction expected. An enormous crowd filled the two sections of the train destined to carry the doctors out to the Lithia Springs," located about twenty miles from the city, but probably half of the multitude were big men and their families, and when the excursionists arrived at the station in the country

many were obliged to walk two miles or more over arid dusty roads to the place where the fatted calf was killed. The grounds, on which the Springs are located, are very beautifully laid out, and as the begrimed voyager entered them, his olfactories were regaled with the widely diffusive aroma of roasting pigs, calves and sheep, which were transfixed by the score over beds of glowing coals.

Provisions of a primitive sort, lemonade, lager beer and cigars were in abundance, though it is but fair to say that in the stampede for the tables it was nearly as much as one's bones were worth to strive for a morsel.

Cool, limped springs of the celebrated Georgia lithia water issued up through the fissured rocks. The water was deliciously cool, most agreeable to the taste and imparts to the whole system a most exhilarating sensation. Its virtues are highly extolled throughout the entire South as a specific for rheumatism, liver or kidney disease; properties which it in no inferior degree possesses.

The "bicycle meet" was regarded by many as little less than a downright swindle. Here delegates with their families were invited to meet and witness the tournament, being provided with tickets at the registration office.

When they repaired, however, to the distant suburb the gates of the exhibition grounds were closed against them unless they paid admission. Ample provisions were made for the meeting.

The general meetings were held in the Grand Opera House, while the Young Men's Christian Association and the hotels comfortably accommodated the sections.

The largest number of delegates were from Georgia, with Illinois second. New York had the largest delegation present that has been seen since the "code" smash.

Sharply on time, on the morning of the first day, President Cole, of California, came on the stage and brought down his gavel with a ring and declared the forty-seventh annual convention formally opened.

After the divine blessing was bestowed, Dr. Frank M. Ridley delivered the address of welcome. This, indeed, was a most eloquent and classic oration, worthy of the great State of Georgia, himself and his profession, as the following passages will testify:

Dr. Ridley said:

"President and Gentlemen of the American Medical Association: I would confess that I am profoundly sensible of the distinction conferred upon me by my professional brethren which places me here. Aside from an apprehension of my fitness to properly perform the task, it would be a labor of love to extend to you their greetings.

"Such a welcome comes not alone from this fair city, which is the pride and marvel of us all, but from the great heart of this great Commonwealth, stretching as it does from the sunlit summit of Lookout to where the crested billows break upon the white sands of our coast.

"Founded in the wisdom and generosity of Oglethorpe, it was the youngest and feeblest of the old thirteen original colonies who by their conjoined efforts threw off the yoke of British domination on the plains of Yorktown. Not only so, but by their pronouncement sent forth from Independence Hall they, like the Veiled Prophet of Khorassan, 'shouted freedom to the world,' and thus started that great political movement which means 'universal emancipation,' and which to-day, it may be, is thundering at the gates of Moro Castle for the deliverance of liberty-seeking Cuba from the distress and ills of Spanish thralldom. In the meantime Georgia has grown to such proportions as to be recognized in no dubious sense as the Empire State of the South.

"Here, then, gentlemen, in this capital of the Empire State, I bid you greeting; here under the shadow of Stone Mountain, that huge bowlder upheaval from abysmal depths of some Titanic force of pre-historic ages; here, in earshot of the 'willow-fringed' Chattahoochee, described by our own Sidney Lanier as 'springing in the hills of Habersham, and shouting through the valleys of Hall,' as on it flows upon our western border 'mid banks of blooming flowers and springing ferns on its 'eternal journey' to the Mexic sea.

"Then, gentlemen, I bespeak the sentiments not only of my profession but of my State when I say we rejoice at the gathering in our midst of this distinguished body of medical savants coming, as you do, from no pent-up Utica, but every part of this great nation, 'From the slopes of the sea that sleeps, to the banks of the sea that's wild,' from all sections of this boundless continent, composed of two score and more sovereign States, 'distinct as the billows, one as the sea.' We recall your former convocation in our midst, we miss the faces of those who, having served their day and generation, have passed to a higher state of existence, and to-day, 'They rule our spirits from their urns.'

"In the meantime our profession has grown apace in all its branches. I do not exaggerate when I say that from the golden gate of Pericles, when Hypocrates wrestled with that fearful plague which almost decimated Athens, until the days of Benjamin Rush, when the mercurial and the lancet constituted the chief armament of our materia medica, there was less advancement in the science of medicine than for the past half century; what the progress of another decade will be the wisest of our number is unable to predict.

"Organization with its concomitant influences has enhanced our achievements. The special work of individuals upon special lines has perhaps contributed more than aught else to an advancement and accomplishment. What political economists since the days of Adam Smith have designated as the 'division of labor' has contributed more than aught else to the ad-

vancement of the mechanical arts. Indeed, the steam engine would never have materialized but for the conjoined and consecutive efforts of Watt and Stephenson, the cotton gin of Bull and Whitney, the spinning wheel of Arkwright; the ocean steamship would never have been perfected but for this 'division of labor.' What is said of the mechanical holds true of the higher arts. When Galvani touched with a wire connecting a zinc and a copper plate the muscles of a dead frog in his laboratory at Bologna and caused it to leap like a thing of life he instituted a new science. Thus by a special and individual study Jenner discovered the vaccine virus, and by it curtailed the ravages of a dread disease and robbed it of its terrors. Koch discovered the bacillus which has destroyed so many useful lives, wrecked so many homes, and 'hangs still like a pall' over humanity.

"Pasteur has thus been enabled to counteract the subtle venom of the rabid dog. Lister has discovered antiseptics and thus almost revolutionized surgery, and our own Crawford Long discovered the anesthetic which has made the capital operations of surgery painless to the sufferer. Marion Simms applied the silver suture and thus instituted a new era in gynecology. Indeed, gentlemen, time would not avail me to mention one-tenth of the discoveries and applications of specialists in special lines which have given to medicine and to surgery the certitude of the exact sciences.

"You gentlemen have come to further advance in your special sections the principles which these pioneers promulgated, and 'they builded wiser than they knew.' In behalf, then, of my profession I bid you greeting. Here, on this typical southern May day, 'neath as lovely a sky as ever blessed the vision of Mantuan bard, in a veritable atmosphere of hospitality as bright as our sunshine, and as 'sweet as the breath of the roses which bloom in our wild-wood,' I bid you welcome, thrice welcome, to this happy, prosperous, proud old Commonwealth."

In the absence of Judge Van Epps,

who was to respond in behalf of the State of Georgia, the Hon. John Temple Graves, the distinguished Georgian orator, addressed the convention. His address was a masterpiece of oratory. He noted in the course of his remarks that of late years Atlanta had come to be named the "City of Conventions," as here more than in any other American city representative bodies of laymen and the learned professions had chosen to meet. He spoke in the most enraptured ecstasies of Georgia's triumphs, her resources, her hospitality and progress, and in behalf of his native State extended to all an unbounded welcome.

The time had now come for the serious work of the convention to open. Dr. Beverly Cole, the presiding officer, from his first gesture and intonation of speech, was by all conceded the right man in the right place. He presided with becoming grace and dignity, prompt and fair in his decisions, yet thoroughly impartial. He is possessed with a strong, clear, melodious voice, heard without effort in any part of the auditorium.

All were impatient to hear his inaugural. His principal topic was the educational question, taking the ground that a classical super-structure for a foundation, with a well-rounded, four years' course were desirable and necessary to properly equip the young practitioner for the battle of life in his profession.

Turning to the present condition of things in the profession, he condemned, in unmeasured tones, the present tendency to excessive and ill-timed surgical operations. The modern gynecologist he lashed with unsparing vengeance, satire and ridicule, and on this topic closed by saying:

Whilst the year just passed has been marked by several important discoveries of scientific value, the usual advances in the line of medicine and surgery have been made, but I begin to fear that the tendency to push surgery to the exclusion or neglect of medicine is becoming glaringly conspicuous.

It would seem that every tyro im-

agines that surgery offers the greatest and quickest route to success, and that fame is to be attained only through blood; hence every case, the symptoms of which are directed to McBurney's point, is necessarily a case of appendicitis, for which the only sovereign remedy is the knife, or if it be a woman, and her suffering is referred to the ovarian region, or she have a fibroma, however small and barren of symptoms of importance, not only must she be subjected to celiotomy at once, but in nine cases out of ten has her uterus or uterine and ovaries sacrificed, thus unsexing her without the slightest effort being made to spare these organs and preserving to the woman her distinguishing feature.

If the same practice prevailed to emasculate every man, who might have a neurosis of the cord and neighboring organs, there would be fewer operations than are now done on women for no greater cause. So common have these operations become of late, owing to the comparative safety through the employment of asepsis attending them, that many women consent to, or even apply for them, in order that they may avoid bearing children. How far a surgeon may be justified under these circumstances in rendering the desired aid is problematical, whether viewed from either a moral or legal standpoint.

To use the language of another, "we believe thoroughly in allowing the public to estimate the medical profession, but it sometimes seems as though the exploitation of the wonder of surgery was a little overdone, the result being that as soon as a person has any ailment of any part of the body, the people at once want to have it cut out," and, I am sorry to say that the feeling extends to too many of the profession, one saying to me some time ago in consultation, "Why, doctor, you very well know that all of value in our science is in surgery. It is scarcely necessary to say that the author of this remark was an abdominal surgeon, or to put more directly, an abominable surgeon.

THE PRESIDENT'S ADDRESS.

The president stated that fifteen years ago he had been made first vice president of the association, when Dr. Lewis A. Sayre was president.

Regarding the American Medical College Association, the president said it had within the past two years brought about great and most desirable changes. It must be admitted that improvement had been effected, but very slowly, and the practice of many schools in evading the rules established by the association was so general that the good which resulted was small, and the manifest reluctance of so many now within the organization to accept the last advance—namely, the adoption of the four years' course requirement—gave but little promise for the future.

Just so long as the examinations for matriculations were conducted by members of the faculties of medical schools evils would continue, and so long as the professional examinations for degrees were conducted by interested persons the ranks of the noblest profession would be filled with uneducated, untrained so-called doctors.

Relative to making examinations for life insurance companies, he said that no man qualified to make a thorough examination, such as was required by insurance companies, if he was properly conscious of the value and importance of his services, would or could assume the responsibility attaching to his function as an examiner without an adequate return. Surely the fee of five dollars was small enough, and the offer of any smaller sum was simply an insult to an educated physician and a bid for such cheap and unscientific service as could be obtained from the ranks of the unskilled and the irresponsible.

Let every examiner plant his foot and decline employment without adequate compensation; let it be published to the world that certain companies employed incompetent men, or, paying cut fees, received cut services, and very soon they would discover their mistake and be brought to a realization that the best and

most skillful services command the best prices.

Another question of grave importance, and one which he thought the association should take cognizance and suggest a remedy, was the total absence of reciprocity between the United States and foreign countries as to laws governing the right to practice medicine. Why Americans should be required, when taking up their abode in Germany, Great Britain, or even the territory of our first cousin, Canada, to undergo an examination before they could secure a license, while our portals were flooded through which every country on earth poured its surplus of medical men, or rather, to put it more correctly, why our country should receive with open arms, without hindrance, the excess of the products of foreign schools without requiring of them the same as was required of us, he could see no reason, and he was distinctly of opinion that the time had arrived when it should be attended to and something done to arrest the strides of this rapidly growing wrong.

The profession advanced by Dr. Cyrus Edson of having discovered a cure for tuberculosis in what he styled aseptolin was one that naturally had attracted attention and should be thoroughly tested. Let us hope for better results than had been obtained from Koch's tuberculin. It was to be regretted that men of character and well-known scientific attainments and honesty of purpose should allow descriptions of what seemed to them to be valuable to find their way into the secular press, to be discussed by unscientific minds before they had been thoroughly experimented with by the authors or by others capable of instituting and observing results of properly conducted tests. He had noticed with inexpressible pleasure the action taken by the association at its last meeting, together with its hearty support at the hands of the State Society of Pennsylvania, so far as the advertising columns of the association's Journal were concerned. In this case reform had begun at home, and the president said we should carry it further and apply it to individuals.

Equally gratifying was the effort now being made to induce Congress to provide for an additional member of the Cabinet, who should be known as Secretary of Public Health and should be the head of a department to be known as the Bureau of Health, which should have general charge of health matters as well as statistics. Such a department would be of incalculable utility and value, and the measure should by all means possible be vigorously pushed forward.

While the year just passed had been marked by several important discoveries of scientific value, the usual advances in medicine and surgery had been made, but he feared that the tendency to push surgery forward to the exclusion or neglect of medicine was becoming glaringly conspicuous.

It would seem that every tyro imagined that surgery offered the quickest route to success, and fame was to be attained only through blood; hence every case the symptoms of which pertained to McBurney's point was necessarily a case of appendicitis, for which the only sovereign remedy was the knife; or, if the patient was a woman and her suffering was referred to the ovarian region, or she had a fibroma, very small and barren of symptoms of importance, not only must she be subjected to celiotomy at once, but in nine cases out of ten her uterus, or uterus and ovaries, sacrificed, thus unsexing her without the slightest effort being made to spare these organs and preserve to the woman her distinguishing function.

If the analogous practice prevailed of emasculating every man who might have a neurosis of the cord and neighboring organs there would be fewer operations than are now done on women for no greater cause. The fact that improvements and development that improvements and advancements in surgical procedures had made them relatively safe should not be advanced as an argument, and he looked with suspicion upon him who might maintain that, as no use could be assigned to the appendix vermiformis, it should upon the slightest provocation or ex-

cuse be removed. Was it not time that a halt should be called and such cases be assigned to those who were expert in diagnosis as well as in surgical procedures? Could any law of either God or man be found to justify oophorectomy or hysterectomy except under the most dire conditions?

The event of Wednesday's meeting was the address on "Medicine," by Dr. William Osler, of Baltimore.

The attendance was large and close attention given from the beginning to the end of the scholarly address delivered.

On this occasion the learned professor maintained, in his address on fevers, his well-known reputation as a medical nihilist.

Practically nothing new was advanced, and the essayist would have his audience believe that the only way the cure of disease possible was through natural processes; a knowledge of which one must obtain in the autopsy-room and in the dead-house. His views on the nature and treatment of the essential fevers were widely discordant from many of his gray-haired auditors of the South, who annually have to deal with every type of them.

According to the dictum of this author, antiseptics are impotent in the treatment of gastro-intestinal diseases.

The only specific for malaria is quinine. The discovery of the plasmodium he regards as of high diagnostic importance.

Immediately on the close of Dr. Osler's address the executive session opened, and the second day's session of the American Medical Association's convention was even livelier than the first and before the day's work ended a red-hot fight was precipitated on the question of retaining Dr. W. B. Atkinson in the position of permanent secretary of the Association.

Dr. Atkinson has been secretary of the Association for thirty-four years. For several years past an element in the Association has tried to

depose the secretary, always without success. This year the effort is being made with redoubled energy and those who are leading the attack claim that their chances of ousting Dr. Atkinson are better than they ever were before.

The attack on the venerable secretary was begun by Dr. I. N. Love, of St. Louis, at the morning session in the Grand Opera House Tuesday.

President Beverly Cole was in the chair and he had all he could attend to keep the convention from running wild when the fight was at its height.

It was frequently necessary for the president to resort to methods that were almost Reed-like. So emphatic were his rulings on occasions that someone in the audience announced that the doctors had a second Tom Reed to govern their deliberations.

"My name is not Reed," said President Cole, "but you doctors sometimes need a Czar to preside at this table in order to maintain order. I am willing to grant courtesies as long as such tactics can be properly enforced, but when it becomes necessary to be stringent and to confine ourselves strictly to parliamentary usages I am prepared to do it."

Evidently the president felt the time had come Tuesday, for he wielded his gavel with more determination than usual, and he held the fighting delegates in perfect control. After the convention Dr. Cole was congratulated on all sides for the splendid way in which he managed a body of warring delegates who were inclined to be belligerent on all occasions.

The charge was made that Dr. Atkinson was not an "up-to-date secretary," was not a stenographer nor familiar with the modern requirements of the office and further, that there seemed no good reason why the position should not, like the president's office, be rotating.

A more serious charge was brought against the secretary, that he had suppressed an important part of the transactions of last year bearing on the question of electing a new secretary.

Dr. Atkinson made an explanation

which, though satisfactory in the main, was not quite as full as a complete vindication would demand.

At this stage of the proceedings Dr. Isaac N. Quimby, of New Jersey, made a motion to table the whole matter.

This was carried by a vote of 93 to 61 against.

There can be no question but there is a determined sentiment among the younger element to displace the old secretary, and no doubt, although Dr. Atkinson this time was saved through a feeling of sympathy, and the loyalty of his friends, he will spare the Association another more aggressive assault on him by quietly resigning his post.

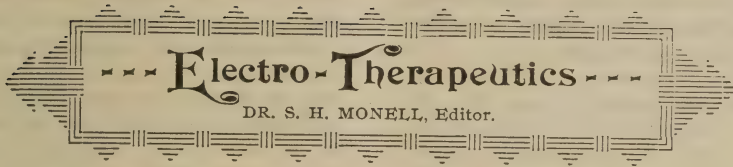
The address on surgery was de-

livered by Dr. Nicholas Senn, of Chicago.

This distinguished master of his art again dazzled and confounded his audience by an oration at once of a high order of scholarship, eloquent, fearless and aggressive.

His discourse was a lengthy one occupying more than 15,000 words. It included a review of modern progress in surgery, the surgery of the cavities and organs, its science, principles and practice. Concluding, he scathingly condemned the modern mutilating operations on women and the much general operating. He strongly advised more conservatism and reliance in internal medication with hygienic treatment before resorting to any description of surgical operation.





THE ELECTRICAL EXPOSITION AND RECENT ELECTRO-THERAPEUTIC PRACTICE.

The use of rest, water and electricity in the treatment of diseases, especially those of the nervous system, was the subject of a paper read before the Pittsburg Academy of Medicine, by Dr. Diller. "No one, probably, would dispute the therapeutic value of rest, only a few that of water; but a considerable minority regard electricity as valueless, except for its psychic influence." In making his remarks the author did not wish to be understood as intending to minimize the value of other extra drug measures, such as climate, hygiene, diet, gymnastics, massage, etc., nor of drugs themselves, for great faith may be placed in the value of certain drugs in certain diseases.

The actions of water may be classified as diuretic, tonic, sedative and mechanical. The tonic effects of water may be gained in quite a variety of ways, as, for instance, the cold plunge, sea bathing, cold wet pack, cold sponging, cold needle or rain bath.

The sedative influences of water are secured through the warm or hot bath, the hot pack, the Turkish or Russian bath. The warm bath is the simplest and least injurious of all hypnotics and is often aided by a glass of hot milk after the bath. The sedative action of the Turkish bath is marked. By its decided action on the glands of the skin, resulting in greatly increased elimination of waste products, is secured.

The bath is exceedingly useful in gouty, rheumatic and all conditions in which auto-infection enters as a

prominent factor. Alcoholics and epileptics, and occasionally tabetic patients, are benefited by it. The bath has a soothing, quieting effect and often by hastening the elimination of effete products produces beneficial effects in cases of melancholia, stuporous, confusional and other forms of insanity. (The useful effects of both dry and moist heat are, I believe, much more desirably obtained by the electro-therapeutic bath cabinet, such as I employ in my own practice, than by the customary form of Turkish bath, where the vitiated hot air is inhaled by the patient.—Editor.)

To-day electricity is probably used more or less by the great majority of physicians. To employ electricity at all intelligently, an understanding of the fundamental principles of physics is a necessity. Above all, none should be ignorant of Ohm's laws.

It must, however, be frankly admitted that with all the painstaking care which has been bestowed upon the subject and with greatly improved apparatus, electricity is given largely in an empirical way. Why then insist on the necessity of an understanding of the physics of electricity?

For the same reason that I would urge the study of the physiological action of drugs, which we also use empirically.

So many of our best drugs are used empirically that the demand to discard electricity because it is used in the same way seems strange indeed. A knowledge of the physics of electricity enables us to avoid danger in

using it and to employ it empirically to the best advantage. We also possess certain definite information as to the action of electricity. It possesses in a marked degree tonic, sedative and irritative properties.

It is also a cautery. It has electrolytic and cataphoretic actions. It produces a marked effect on nutritive processes. It stimulates or arrests secretion of glands and changes the calibre of blood vessels. (Note how admirably it is adapted to co-operate therapeutically with the hot vapor cabinet apparatus referred to above.—Editor.)

Much harm has been done electricity by its over-zealous friends, who have made extravagant claims for it. It is not so much a more extended use of electricity that we need as a more intelligent use of it. "The use of rest, water and electricity has this in common; each, to be employed to the best advantage requires that we possess the knowledge of certain fundamental truths governing the philosophy of its action; that a certain technique in administering each must be followed, and the success of each (or all united, as they may well be in many cases) is largely dependent upon attention to detail and perseverance in carrying out the clear specific directions of proper practice."

The first anniversary of the New York Electro-Therapeutic Dispensary occurred on April 6. The report for the year stated that of 850 Franklin applications four-fifths were with negative insulation. The result in increase of weight, regulation of temperature and heart action, increase of urea and diminution of uric acid, did not vary from those made with positive insulation. From this it is deduced that so far as physiological effect is concerned it does not matter which insulation is used. As the spark from negative insulation is the more tolerable, it is now used from choice. In metallic electrolysis the value of copper and zinc electrodes in the treatment of catarrhal and other affections of mucous membranes has been substantiated and considerable work has been done

with silver sounds and tips. The action of silver has been found to be more superficial and less irritating than that of copper, and to have a wide range of therapeutic utility.

Enlarged or hypertrophic prostate is regarded as a common condition in the latter period of life.

Probably two-thirds of all cases may be satisfactorily treated by the occasional use of the catheter to relieve an attack of acute retension, and by the routine use of mild antiseptic irrigation of the bladder at intervals varying from once a day to once a month. This demands a reasonably constant supervision of the surgeon or an unusually intelligent co-operation by the patient.

Operative interference is indicated in later stages when catheterism becomes difficult, painful or necessarily more frequent than every three hours, or when decomposition of residual urine occurs and persists despite irrigation, or when interference with sleep is so great as to injure the general health, or when persistently recurring spasm of the bladder is not relieved by catheter or medication.

The proceedings given by Dr. W. P. Munn are: 1. Those which aim at relief of the bladder by simply providing drainage, either perineal or supra-pubic. 2. Operations aiming at permanent relief by inducing atrophy of the prostate gland, to wit, castration, ergot injections or ligation of the spermatic arteries. 3. Operations aiming at permanent relief by incision or excision of a part or the whole of the obstructing growth.

The result of ten operations reported by Dr. Munn was two complete recoveries, five partial recoveries and three deaths.

I have cited the above from a recent and extended paper, to emphasize the omission of all mention of electro-surgical treatment. Some weeks ago an Ohio physician reported a case of enlarged prostate and inquired through the medical world, "What is the ultimate prognosis in the case, and what can I do to ameliorate his condition?" (The patient had the usual symptoms, pain, tenes-

mus, etc., one attack of cystitis, and urinated by means of a catheter about five times in twenty-four hours.)

Dr. A. W. Bickford's reply brings out the value of electrolysis in an interesting manner, and I have quoted from the above author for the purpose of directing attention to this form of treatment.

Dr. Bickford says: "The inquiry of Dr. Black is a question I have asked for the last quarter of a century, and never had a satisfactory reply until the past two years, when I have found that galvanic electrolysis will control and cure the hypertrophy just the same as it will any morbid growth. My father and one brother, a physician, both died from enlarged prostate, and my own prostate began to enlarge and cause frequent micturition from horseback riding during the muddy seasons for four years ('90 to '94). I found that hyoscyanus, sanmetto, corn silk and similar remedies would relieve the vesical irritation, but I never found or heard of any medicine that would reduce the enlargement.

For two years past I have made a special study and practice of electrotherapeutics and found the galvanic current to be a curative treatment, applied as follows: A suitable carbon or metallic electrode is introduced into the rectum so that its active surface will press gently against the prostate, the opposite surface being insulated.

To this electrode the negative conductor is attached, and the positive electrode placed on the lower abdomen. The current is then gradually turned on through a rheostat until about five milliamperes are reached, holding this for from five to eight minutes and then slowly decreasing to zero. This is repeated once a week, and alternated with urethral electrolysis with a medium sized olive-tipped electrode, insulated on the superior surface where no current is needed, positive electrode on the perineum. C. S. must be regulated within comfortable tolerance. The result is all that can be desired. In my own case the vesical irritation is

all gone, micturition normal, prostate scarcely to be found per rectum, and although it may possibly grow again sometime I am confident that I have a potent remedy for the trouble."

One of the most interesting events of the year has been the Electrical Exposition held in New York city this month. The President's address at the convention of the National Electric Light Association referred to the strictly scientific advances in electricity, and its growth commercially. "When our fellow countryman, Benjamin Franklin, flew his silken kite—the first real step toward modern achievement—he drew from the clouds a tiny spark. That spark was then but like the twinkle of a star myriads of miles away. It hinted at the existence of an unexplored world, but so faintly that the utmost stretch of the imagination failed to measure its immensity or determine its course. Gradually new facts were added concerning this mysterious, distant star. It grew brighter. It came nearer within the reach of man. A few years ago it assumed the proportions of a body of the first magnitude, and so rapid has since been its onward progress that to-day the tiny spark has grown to be a brilliant sun, dispelling darkness throughout the civilized world. The course of electrical science has been meteoric. What in the days of our childhood was scarcely more than a toy is in these closing years of the century the mightiest agent known to man. One miracle has followed another until we can but wonder what apparent impossibility will be accomplished next. The first electric lighting central station was established 17 years ago. At present there are 2,500 electric States, operating 10,000 installations, investing \$500,000,000 of capital. The same currents that require 200,000,000 carbons for arc lamps alone per year, also operate 500,000 stationary electric motors. The electric railway is but 10 years old and yet we have already constructed 900 such roads, using 11,000 miles of track operating 25,000 cars, and employing \$750,000,000 invested capital, growing at the rate of \$100,000,000 a year for


new roads and new equipment."

These astounding figures are only a part of the enormous electrical industry. The extraordinary inventive genius that has brought so many commercial forms of electrical appliances to perfection has had abundant reward, and it is already probable that some of this creative genius will


in time turn itself to the improvement of medical forms of electrical apparatus, so that the march of development may discover and utilize all the curative properties of this valuable therapeutic agent.

There is reward for inventive genius in this field also.

865 Union street, Brooklyn, N. Y.



Correspondence.



To the Members of the Medical Profession:

My two collective reports, already published, on "Ice-Cold Applications in Acute Pneumonia," give a record of one hundred and ninety-five cases so treated, with seven deaths, or a mortality rate of 3.58 per cent.

Being desirous of making as full a report as possible on this subject, I take the liberty of asking those who

have tested this measure to kindly give me the result of their experience. Full credit will be given to each correspondent in the report which I hope to publish. Blanks for the report of cases will be furnished by me on application.

THOMAS J. MAYS, M. D.,

1829 Spruce st., Phila.

May 1, 1896.





Book Reviews.

Twentieth Century Practice: edited by Thomas L. Steadman, M. D.; vol. 6; William Wood & Co., No. 47 East Tenth street, New York city, publishers.

This volume treats of the diseases of the respiratory organs. Beginning with diseases of the nose, it follows an exhaustive and complete course in its descriptions of the various diseases of the air passages.

This work, like the previous volumes, is subdivided and noted authorities are assigned the various parts. All the newer methods and instruments for diagnosis and treatment are mentioned. The contributors to this volume are Dr. Winslow Anderson, California; Professor Francke H. Bosworth, New York; Professor Albert Buck, New York; Dr. George A. Gibson, Edinburgh; Professor James Loudon, Professor Moure Bor-

deaux, Sir Thomas Grainger Stewart, Edinburgh, and Professor Jonathan Wright, Brooklyn.

The Newer Remedies; A Reference Manual for Physicians, etc., by Virgil Coblentz, A. M., Ph. D., F. C. S.; second edition; Haynes & Co., publishers, New York; free on application from physicians direct to McKesson & Robbins, No. 91 Fulton street, New York.

This manual is compiled on similar principles as the abstracts we have been running in the "Times and Register" under the heading of "Therapeutical Progress," but the descriptions are given at greater length in the manual. We know a great many of our subscribers will want a copy, which is free on proper application, mentioning this journal.



Current Medical Literature.

OBSTINATE HICCOUGH CURED BY RHYTHMICAL TRACTIONS OF THE TONGUE.

Professor Lepine, of Lyons, communicated to the Societe Medicale des Hopitaux an interesting case of obstinate hiccough cured by rhythmical tractions of the tongue.

A young non-hysterical girl was seized with persistent hiccough (thirty times per minute), and when he saw her she had already been in that condition three days. The affection appeared to depend on some malady of the stomach. Having remarked that in examining the tongue of the patient the hiccough ceased, M. Lepine advised her to execute during a certain time traction of the tongue. The result was almost immediate. It was a case of reflex action, originating in the mechanical irritation of the base of the tongue, influencing the bulbar respiratory centre, the seat of some functional trouble. —Paris Cor. Med. Press and Circular.

HOW TO CURE A BAD HABIT.

The Eastern Pennsylvania Penitentiary has recently given an example of an excellent method of curing the opium habit, and the method is one which will apply to the whisky and tobacco habits as well. One of the opium takers cured had used the drug for four years; another, for fourteen years, and another, for fifteen years. These persons were committed for various offenses. They were put in cells, and treated the same as other prisoners. In ten days they all were enjoying better health than for a long time before. —Good Health.

PULSATORY TINNITUS.

At the last meeting of the British Medical Association,

Sir William Dalby exhibited a girl, aged fifteen, always in excellent health, from whose left tympanic cavity a loud grating sound could be heard by the bystanders; it was something like the loud tick of a watch, synchronous with the pulse for several beats, then a brief interval, and again the tick. This remarkable symptom came on suddenly in February, 1894, and had remained ever since. The beats vary in number: e. g., seven beats, interval; two beats, interval; four beats, interval; thirteen beats. Hearing is not affected. No position or movement of the body, or indeed any condition that has up to now been noticed, appears to modify it. Both tympanic membranes are normal.

Sir William Dalby has met with only two other cases of a similar nature. Doctor Baker reported a similar case in the Archives of Otology about ten years ago.

—Cleveland Medical Gazette.

INFECTIVE ENDOCARDITIS IN TONSILLITIS.

Charrin (Sem. Med., March 14, 1896) reports the following case: Male, aged 18, for last three months had been growing rapidly in height. Had been at work up to a few days before admission into hospital; then he was emaciated and very pale. Temperature, 104 degrees F., to 105.4 degrees F. He had dyspnea, broncho-pneumonic patches in the right lung, liver and spleen rather enlarged, slight albuminuria and muffled heart sounds; right tonsil moderately swollen. Diagnosis: Infective broncho-pneumonia, possibly influenzic, following tonsillitis. Treatment: Digitalis, quinine and salol, in equal parts of rum and lime juice, frequent

oxygen inhalations, dry cupping over the thorax, and when the patient became worse, general bleeding. The latter was performed in order to get rid of some of the toxins circulating in the blood, and was followed by an improvement, but this did not last, and he soon died. Post-mortem examination: Liver fatty, spleen soft, broncho-pneumonic patches in the right lung; heart, exuberant vegetations on the pulmonary valves. In the broncho-pneumonic patches and the valvular vegetations staphylococcus aureus was present, which had been found during life swarming on the exudation over the tonsils. These are the same organisms which Bouchard has isolated from the lesions of chronic and subacute rheumatism, so often preceded by tonsillitis. The organisms were probably able to become generalised in this case, owing to the anemic feeble condition of the patient.

B. M. J.

VARIATIONS IN THE PULSE AND CARDIAC VOLUME, WITH CORRESPONDING CHANGES IN THE SIZE OF THE LIVER AND SPLEEN.

M. Heitler (Wiener Med. Woch., March 21, 1896), in studying certain cases of arrhythmia cordis, found that when the pulse is small the cardiac dullness is larger than when the pulse is large. Recently he has discovered that with a small pulse and a large area of cardiac dullness there is a corresponding increase in the hepatic and splenic areas of dullness. In cases of weakness during convalescence from acute infectious diseases the physiological variations in the cardiac volume, which Heitler first observed in 1890, may be increased. The rapid development and disappearance of passive congestion of the liver has been recognized. Sometimes the edge of the liver may be felt during the evening at the umbilical level, and the next day it may have receded below the costal margin.

B. M. J.

A NEW IRITOMY.

I have devised a new method of forming artificial pupil in cases of central opacity of the cornea or lens, which has the advantage over iridectomy in that the periphery of the refraction media, which is of irregular refraction, is not exposed to the entering light rays. This I term external iritomy.

An incision is made through the cornea a little in front of the limbus, large enough to permit of easy passage of a small portion of the iris:

By means of iridectomy forceps the iris is gently drawn out through the wound:

The sphincter is incised to a variable extent with the scissors:

The iris is returned to its place and the eye bandaged.

The operation is expedited and the danger of prolapse of the iris lessened if eserine has been instilled before operation.

Lagrange in *Annales d'Oculistique—Medical Age*.

EUCAINE:

A NEW LOCAL ANESTHETIC.

By H. Kiesel, Dentist, Berlin.
(Translated from the "Zahnärztliche Rundschau," Berlin, April 5, 1896.) Abstracted.

The hydrochlorate of eucaine, which is to replace the hydrochlorate of cocaine, has the following chemical constitution: C, 19; H, 27; NO, 4; HCl.

From a chemical point of view eucaine has an advantage over cocaine in that it is not decomposed by boiling with water; cocaine under similar circumstances, dividing into benzoyllecgonine and methyl alcohol, and losing its efficacy as a local anesthetic.

Eucaine, like cocaine, is used in the form of an injection. At first I employed a solution of 1.15 of sterilized water, using, according to the nature of the operation and the size of the field to be covered, from one to two syringe-fuls. But I soon found

that higher percentages might be employed. I then prepared a solution of 1.61-2, and used that thenceforth in my experiments. Their results were entirely satisfactory.

As regards the advantages of eucaïne over cocaine, I note as follows:

1. The heart is in no way influenced by it. In fact, I noticed that in very nervous patients, whose pulse had risen to 120 and 130 before the operation, the heart beats became normal and regular very soon after the injection.

2. The anesthesia is more extensive in area and lasts longer than does that of cocaine. In some of my experiments the analgesia extended even to the muscles. In one case, where an injection was given over the first incisor, there occurred a paralysis of the ala nasi and anesthesia of the nasal mucous membrane on the right side. The patient declared that her nose felt as if it was stopped up, but the sense of smell was not interfered with.

3. As much as two grams (thirty grains) of eucaïne can be injected without trouble; whilst of cocaine the similarly safe dose is only 0.01 gram (1-6 grain). Thus of a solution of 1.61-2, about fifteen per cent., twelve syringefuls, would constitute a maximum dose. Half that quantity would, however, under favorable circumstances, be sufficient to painlessly extract all the teeth from a mouth.

4. Solutions of 1.61-2 in sterilized water are permanent at the ordinary temperature of the room. They remain clear without the addition of carbolic or salicylic acids, and do not become flocculent as cocaine does.

5. Finally, I am informed that it is intended to put eucaïne on the market at a price considerably less than that of cocaine.

When we consider the facility of application of eucaïne, the certainty of its action, and, above all, its great advantage in the absence of noxious by-effects, it is evident that it will soon become one of our most favored anesthetic remedies.

I have known the preparation since November, 1895, and have used it ex-

clusively. My results have been such that I have cast aside both ethyl chloride and ethyl bromide entirely.

CYCLING AND THE SADDLE.

From a medical standpoint, bicycle saddles are, as a prominent New York physician expressed it in a recent article, "physically and morally injurious. The entire weight of the body comes on the soft tissue of the pelvic floor. The sensitive tissues, subject to such pressure and irritation, must suffer, and the evil cannot yet be estimated."

As all physicians are well aware, few persons afflicted with urethral, prostatic or bladder trouble are able to ride a bicycle without materially increasing the difficulty. This must be distinctly charged to defective saddles, and the same cause will produce disease in perfectly healthy people. Hence the importance, the absolute necessity, of using a proper saddle cannot be exaggerated.

As the writer referred to, aptly expresses it: "A perfect saddle for either man or woman is one that will maintain the body in an easy and proper position. It must be a surface large enough to receive the tuberosities, so that the weight comes on the gluteal muscles. It should have, like an army saddle, a hole in the centre, to relieve any injurious pressure. This will prevent urethritis, prostatitis and prostatic abscess. The saddle should allow pedaling without needless friction. The rider should have a firm, yet elastic, seat."

In the Christy Saddle, Messrs. A. G. Spalding & Bros. have secured a bicycle saddle that fully meets all the demands and satisfies at once all medical and scientific requirements without losing any possible advantage in other directions.

It is modeled in strict anatomical conformity to the parts of the body with which it comes in contact; comfortable, yet firm cushions are employed and so adjusted as to properly receive the bony prominences of the pelvis. These cushions, which are removable, rest upon a perforated base, and, with a free circulation of

air through the horn of the saddle, insure a cool seat, a most important consideration from the standpoint of comfort, as well as hygiene. The frame is made of metal and maintains its correct position under all circumstances. The saddle is easily adjusted at the proper angle. Numerous testimonials from eminent surgeons declare this saddle to meet all medical requirements, while eminent riders give it the highest praise.

A DANGEROUS TENDENCY IN PHARMACY.

With the synthetic artificial pre-

parations, a liability to association with accessory or by-products is to be noted, and these are sometimes more active than the fundamental substance, and, since the artificial product is often the cheaper, and, producible in larger amount and more regularly, it is liable to be employed by pharmacists without notice to its prescriber, and thus unexpected results be obtained. Salicylic acid made from phenol, unless carefully purified, will contain highly toxic by-products, while that made from wintergreen oil is pure. Benzoic acid is another example.

—Philadelphia Polyclinic.



German and Italian

Translated by DR. F. E. CHANDLER.

TREATMENT OF CHANCROIDS.

Von Herf recommends highly the use of liquid carbolic acid and reports results of over 100 cases thus treated.

After a careful cleansing of the genitals the ulcers (often thirty to forty in number) were dried with absorbent cotton and brushed over with pure carbolic acid.

The resulting pain was of but short duration, and only when the ulcers were near the clitoris or urethral opening, was cocaine applied.

After-treatment consisted merely in keeping the parts clean by hip baths and injections. Four or five days later the ulcers were examined and were usually found well on the road to cicatrization.

An additional advantage of this treatment is that it gives a sure method of diagnosing chancreoid from the primary syphilitic ulcer, when a differential diagnosis would not otherwise be possible. If the neighboring lymphatics are inflamed, these usually reabsorb their contents and quickly disappear under this treatment.

—Monatsch, f. Geb. u. Gynaek.

BACTERIURIA AS A COMPLICATION OF GONORRHEA.

Dr. Max Schlifka, of Vienna, in a long paper on this subject says that urine containing bacteria is usually muddy and has a nauseous and penetrating odor, even when freshly passed.

This is, however, by no means a constant symptom, for it happens occasionally that patients who have been passing muddy urine secrete

some the following day that is perfectly clear and transparent.

In this case, the seat of the disease is never in the bladder itself. The bacteria may gain admission by: (a) the urethra; (b) by the neighboring organs, either by direct communication with the lower part of the intestine, by the prostate or by the lymphatics.

When the urine is not always muddy, we may state with assurance that the infection starts from the prostate.

As a usual thing, bacteriuria is not troublesome, but in some cases it is accompanied by a discharge from the anterior portion of the urethra.

The pus then secreted is probably formed from the epithelium, modified by the gonococci reacting in the presence of urine charged with bacteria. When there are general symptoms the case is more serious. These general phenomena are fever, physical depression and nausea. The prognosis is bad when there is a direct communication between the intestine and the prostate.

—Wiener Med. Presse.

SYPHILIS AND MALARIA.

Dr. Rugge, of Berlin, examines the question as to whether the treatment of the first stage of syphilis as extolled by Lassar has given good results. He answers in the negative.

There are hard chancres resembling the primary syphilitic lesion that are not followed by general symptoms.

Author has found a number of these on the west coast of South America, and insists that a positive diagnosis can be established only after the appearance of the general

symptoms, and that then, and then only, should treatment be commenced.

Lassar's method of endeavoring to suppress syphilis in the bud, as it were, presents, according to our author, several dangers.

There is one disease whose elements of infection are well-known and whose progression has a striking resemblance with syphilis; that is malaria.

It has been observed that if quinine is administered shortly before the attack of fever or at its onset, the attack is not aborted. The reason for this is that the plasmodia arrive at maturity at or slightly before the febrile attack.

When this is over, the young parasites enter the blood, and may then be killed by quinine.

In syphilis, we see that our specific has but little influence on the first stage, but produces an excellent effect when the general symptoms have made their appearance; and specific treatment must be continued for some time after the disappearance of all symptoms.

Here, as in malaria, relapses are of common occurrence. Author sums up with the statement that in syphilis and malaria we have two diseases, for each of which we have a specific at our command; but these specifics produce their effects only in certain stages of the malady.

—Monatshefte, f. Prakt. Dermatol.

FOREIGN BODIES LEFT IN THE ABDOMINAL CAVITY AFTER LAPAROTOMIES.

Dr. Severano says that this has happened far oftener than is generally known, and mentions a case of his own that he makes no attempt to excuse. He says that he noticed three months after operating a cysto-sarcoma of the right ovary, that the wound continued to suppurate, but without any elevation of temperature. He dilated the opening, and discovered some threads in the cavi-

ty. Pulling carefully upon these, he pulled out a compress 1 m. 30 in length, and 30 cm. wide. This was not the whole story, for three weeks later he got out a second compress of equal size with the first. The pus was free from bacteria and the patient got well.

Spencer Wells twice forgot and left a pair of forceps in the abdomen of a woman he had operated upon.

Pilate and Quenu left, each of them, a compress; Terrillon a clamp, Terrier a sponge, Michaux a wad of iodoform gauze, etc., etc.

—Presa Medica Romana.

CASE OF CONGENITAL IMPERFORATION OF THE NOSE.

Dr. J. Paz, of Buenos Ayres, reports the case of a girl six years old, who was brought to his clinic. She could not breathe through the right nostril, and there was constant lachrymation on the right side. Examination showed that while the left nostril was perfectly normal, the right one was closed by a thin membrane.

Perforation was decided upon. The operation showed that the membrane was composed of fibrous tissue. Lachrymation disappeared at first only to reappear shortly after and catheterization of the lachrymal duct was resorted to for some time.

Nothing in the child's history could be found to account for the closure of the nostril, so it was considered as supposedly congenital.

—Anales del Circulo-Medico Argentino.

HERPES ZOSTER.

For the pain which so often accompanies this affection, Dr. Cantrell prescribes, in milder cases, an ointment of bismuth subnitrate in the strength of thirty grains to the ounce of base; but when the pain is very excessive, application is made of about one grain of morphine to one ounce of collodion, and the parts anointed or painted three or four times daily.

—Philadelphia Polyclinic.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

LIGATURE OF THE INTERNAL JUGULAR VEIN IN THE EXTIRPATION OF CERVICAL TUMORS.

BY I. DOMBROWSKI.

This author has collected 94 cases of ligation of the internal jugular vein, in the course of tumor excision in the neck, besides enumerates five in his rare practice. His general conclusions are:

1. That the accidental wounding of the internal jugular in the course of an operation is a grave accident, inasmuch as it often imperils life by loss of blood, as by the entrance of air into the vessel.

If wounded, though under the immediate eye of the surgeon, after temporary high pressure, there is always danger of secondary hemorrhage, or pyemia through infection of the coagulum. When intervention is prompt, skillful recovery is the rule.

2. The ligation of the internal jugular is not dangerous if perfect asepsis practiced.

3. The only natural and safe method is to completely ligate above and below the tumor and make a complete section of it.

4. The primary ligation of the jugular vein and carotid artery is always a grave procedure, in respect to its effects on the nutrition of the brain. Asepsis avails nothing here.

—Revue de Chirurgie, 10 Fev., '96.

EXCESSIVE HEMORRHAGE.

Dr. J. McMullen recommends the application of Esmarch's bandage to the limbs in cases of excessive hem-

orrhage, post-partum or otherwise; in extensive burns of the surface in children; and in heart failure especially in connection with chloroform administration. In the absence of an Esmarch, he uses an ordinary bandage in the same way and then applies a tourniquet over the main artery. This treatment by driving the blood into the body, stimulates the heart and at the same time gives it less work.

—British Medical Journal.

THREE CASES OF CYSTOCELE IN THE COURSE OF HERNIOTOMIES.

BY DR. E. LARDY.

(Surgeon to French Hospital in Constantinople)

This surgeon recounts three cases of reducible hernia which he lately met in the course of operation for radical cure in which there were co-incident extrusion of the bladder. And he observes in this connection what is the experience of most surgeons, that cases of rare pathological interest come to a surgeon within limited periods. These three cases he saw in one year, from 1894 to 1895. Two cases were in males and one in a female. Both males had inguinal and the female a crural.

The author in speaking of the pathology of these cases notes that none were primarily cystoceles, but that in all the bladder wall engaged only after the intestine descended.

The extent of protrusions of bladder was very limited, although adhesions with the sac were in all intimate.

Attention is directed to the necessity of a careful isolation and examination of the peritoneal and any other accessory pouch, before division of the parts is undertaken, with a view of radical cure.

—*Revue de Chirurg.*, Avril 14, '96.

ABSCESS OF THE HAND AS A COMPLICATION OF GON- ORRHEA.

As a recent contribution to the long list of complications of gonorrhea which have been shown to be due to the presence of the gonococcus in the remote lesion, we have the report of a case by Horwitz (*Wein. Klin. Woch.*), in which a young man, twenty-seven years of age, who had suffered from gleet for a year, was affected by an abscess on the back of the hand. Examination of its contained pus showed the presence of the gonococcus of Neisser, both microscopically and in cultures. In a carefully compiled introduction, Horwitz reviews the cases of a similar nature which had been published up to the time of his writing.

—*Indian Lancet*.

A TEST FOR DISTINGUISHING BETWEEN SERIOUS EXUDA- TIONS AND SIMPLE TRANSUDATIONS.

Rivalta (*Rit. Med.*, April 24, 1895) finds that if a drop of glacial acetic acid is added to a serious exudate (that is, an inflammatory effusion), a slight white cloud forms in the wake of the falling drop, which precipitate redissolves on the addition of more acid. No such reaction takes place in mere transudation, that is, non-inflammatory fluids. A good way of doing the test is to let fall a drop of the suspected fluid into 200,400 c. cm. of distilled water, aciduated with two to four drops of glacial acetic acid. If the fluid is an inflammatory exudate, a whitish streak follows the falling drop, and on the addition of more acid, is dissolved. Examination of the precipitate shows that it belongs to the class of nuclealbumins. The author's method presents a clinical advantage, in that a mere drop or two of the fluid (such as can easily be withdrawn with a hypodermic syringe) suffices to provide material for the test.

—*Indian Lancet*.



Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

THE VAGINA AND PUERPERAL INFECTION.

Romme agrees with the newest German school in deprecating routine injections and frequent exploration in normal labors. The results of simplicity have been very encouraging. Walthard had demonstrated, he says, the truth about the vagina and sepsis. The virulence of the vaginal streptococcus in a healthy pregnant subject, not officiously treated by the obstetrician and midwife, is equal to that of the streptococcus of other mucous membranes, such as the alimentary canal, which lives on normal secretions. In other words, it is not virulent at all, and acts as a saprophyte on healthy tissues. But when the resistance of the tissues is diminished in the vagina, as in the intestine, the streptococcus can act as a parasite, and be as virulent as the special germ, of the same genus, which causes puerperal fever. Hence routine injections are deleterious in normal labor where delivery has not involved true traumatism of the tissues. Digital exploration is to be avoided, as the vaginal streptococcus might be introduced into the previously aseptic, but naturally lacerated tissues of the uterus. On the contrary, rigorous disinfection of the vagina is indicated whenever exploration or operative intervention has to be carried above the level of the externum, and in all abnormal labors. It is also needed when the

patient has an affection which diminished the resistance of the tissues, such as nephritis, cardiac disease without compensatory hypertrophy, syphilis, diabetes, intercurrent infectious maladies and anemia.

—Charlotte Med. Journal.

PREGNANCY IN GIRLHOOD.

Spitta (Inaugural Dissert., Marburg, 1895) has reviewed the clinical history of 260 labors in primipare of eighteen and under, as observed at the Marburg Maternity. The general health during pregnancy is not worse than the average amongst pregnant women. Delivery before the fortieth week was relatively frequent. The pains are often weak, the labor tends to linger. In many cases of deficient capacity of the pelvis in these patients the defect simply implies that they are not full-grown. The most frequent positive evil in relation to labor in early girlhood is laceration of the soft parts. Vertex presentations are relatively frequent. Floodings during labor are common. The mortality of the child during parturition and the first two weeks is not high. The proportion of male births increases with the age of the mother. The forceps is often required. Affections of the mammae are common. Mortality is by no means high. A history of menstruation coming on early is favorable in a case of pregnancy in a young subject.

—Indian Lancet.



Miscellany.

PNEUMATIC TRUSS PADS.

Those who are obliged to wear Trusses have suffered from pads that are supposed to hold up the ruptured parts, and to alleviate the pain thus caused. Hard and soft pads have been devised and all proven more or less unsatisfactory.

A Pneumatic Truss Pad that is non-collapsible has been invented by G. W. Flavell, of Philadelphia, and can be used on any Truss. It has been found to correct all the difficulties of the old pads and gives instant relief.

One of the New Pads should be in every Physician's Office, and sample can be obtained at the nominal price of 50 cents, from Mr. Flavell.

THE LEPERS OF BURMAH.

Valuable work is being done by devoted Catholic priests among the lepers of Burmah. The annexation of Upper Burmah in 1886 revealed a terrible need for succor to this unhappy class. Bishop Simon (R. C.) addressed the officials on the subject within two years after the country passed under British rule, but it was not until 1891 that Father Johann Wehinger was able to found the St. John's Leper Asylum on a grant of six acres near Mandalay. In Burmah, lepers are not forbidden to frequent public places and are not separated from their families as in India. They lie at the gates of the temples in the food bazaars, and on the sides of bridges where they expose their running sores or hideously mutilated limbs to excite compassion and obtain alms. An asylum for these miserable objects was hailed with gratitude. In two days after it opened the wards were crowded and new buildings had to be commenced. Father Wehinger has made the institution a model for all leper asylums—with a perfect system of hygiene

and measures for the alleviation or even curative treatment of the disease, separate wards for the unaffected children of leprous parents, and a vernacular school for their education. During last year 200 lepers were on the rolls, and the demand for fresh wards grew urgent. Father Wehinger came to the end of his resources. All that self-denial and devotion could achieve he has accomplished. He is now, we believe, in England seeking aid to enable him to go on with his work. It is a work which can most effectively be done by celibate brethren, without the responsibility of wife or possible children to whom the disease might be communicated. Johann Wehinger is the Father Damien of India.

—Indian Lancet.

THE WILLIAM F. JENKS MEMORIAL PRIZE.

The fourth triennial prize, of four hundred dollars, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on "The Etiology and Pathology of Diseases of the Endometrium, Including the Septic Inflammations of the Puerperium."

The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with obstetrics, or the diseases of women, or the diseases of children;" and that "the trustees, under this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees.

In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia."

The prize is open for competition to the whole world, but the essay must be the production of a single person.

The essay, which must be written in the English language, or if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1898, addressed to Barton Cooke Hirst, M. D., chairman of the William F. Jenks Prize Committee.

Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope, bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay.

The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year.

The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

James V. Ingham,
Secretary of the Trustees.

May 1, 1896.

Lord Russell of Killowen, who has risen to the great dignity of Lord Chief Justice of England by distinguished merit as a lawyer, has written for *The Companion* of February 13th a striking paper on "The Bar as a Profession." This paper is marked by the strength and clearness of statement which made the author, when he was plain Mr. Charles Russell, a leader of the bar.

Of eloquence Lord Russell says: "The desirable thing is to have something to say; and as to the manner of saying it, Daniel Webster spoke truly in his celebrated oration in honor of John Adams when he said, 'Clearness, force and earnestness are the qualities which produce conviction.'" Regarding the necessary

qualifications for law: "Love of the profession for its own sake, and physical health to endure its trials, clear-headed common sense and ability to wait are the main considerations to be taken into account in determining the choice of the bar as a profession. If the youthful aspirant possesses these, success is, humanly speaking, certain. He has to remember that while he is fighting for the interests of his client, there are other interests even greater than these: the interests of truth and honor; and he must never forget, as Sir Alexander Cockburn well expressed it, 'that in the battle his weapon must always be the sword of the soldier, and never the dagger of the assassin.'"

—Medical Sentinel, March 1, 1896.

LIGHT AND THE SKIN.

In an article in the *British Medical Journal*, Dr. Niels R. Finsen discusses the question of the irritating action of light upon the skin. As the result of various experiments, by himself and others, it appears that it is not the heat-rays, but the more refrangible so-called chemical rays that have this special irritating action. When light is filtered through red glass these chemical rays are cut off, and the inflammatory action of the light greatly reduced, and it would appear that the chief function which the red pigment of the skin is called upon to play is to act as a defense against this action. It is a fact well known to farmers that cattle and sheep that have eaten buckwheat get an eruption when they stand in sunshine or ordinary light, but not when they are kept in dark sheds, and this has been made the subject of scientific investigation by Virchow and Wedding. From experiments made by the latter it appears that it is only light-colored cattle that are subject to such inflammation, not those with pigmented skins. A white cow that Wedding caused to be tarred on one side got inflammation only on the uncoated side. Dr. Finsen has been experimenting with red light on patients suffering from small-

pox, and finds that if the patient is kept in a room in which the windows have red glass, or are covered by red curtains, to exclude all but red light, pitting on the face and hands is entirely prevented, such treatment proving itself quite as efficacious as entirely excluding the light from these parts by covering them up. In the middle ages, small-pox patients were treated by wrapping them in red coverings and putting red balls in their beds, and even in the present day in Japan and elsewhere, patients are covered with red blankets. Such customs have been looked upon as mere superstition; the success, however, of the red light treatment seems to point to the fact that after all such methods may have been found to be beneficial and to be founded upon a scientific basis.

—Indian Lancet.

NECROLOGY.

Dr. Marie Philibert Constant Sappey, honorary professor of anatomy of the Faculty of Medicine, member of the Academy of Sciences, member of the Academy of Medicine, died in Paris on March 15, 1896, aged 86 years.

With Professor Sappey dies the chief of the French anatomists. His magnificent "*Traite d'Anatomie Descriptive*" is known the world over for its thoroughness and clearness, but its size (four volumes) condemns it for use, excepting as a reference book.

As a worker Professor Sappey may have had his equal, but never his superior. Up to within a few weeks of his death he would dissect as carefully and well as he had when a young man, and was seriously contemplating the publication of a work on general anatomy when death put an end to his labors.

TRAUMATIC INJURY TO EYES; HYPOPYON.

The last patient which I present to you belongs to a class that you will frequently have to prescribe for

—hypopyon, pus in the anterior chamber due to a blow upon the cornea from a small stone. Let me impress upon you that a bruise of the cornea is a very serious injury, and do not venture an opinion too hastily. This man had no untoward symptoms from the injury for several days; then, suddenly, he experienced a lacerating pain, flashes of light, phosphenes, intense lachrymation and photophobia. For 24 hours he applied domestic remedies, as tea leaves, hot water, etc.; but the pain grew worse, and he came to the clinic yesterday with an eye congested and very painful, anterior chamber half full of pus, pupil contracted—in evidence of pain—and the cornea, apparently, infiltrated, with a marked tendency to desquamation of the epithelium.

What is to be done to preserve the eyeball and save vision? No internal nor external application of drugs will save the eyeball. The only operation which holds out hope is the one suggested by Saemisch: pass a small Graefe knife horizontally through the lower third of the cornea; this allows the pus to escape through the opening and also has an antiphlogistic action on the bruised cornea; then, by irrigating the parts well with the lotio boracis and instillation of atropia and bandages, we may look forward to rapid recovery of the wound. The patient is kept in bed, and internally small doses of calomel prescribed. Were we to allow this breaking down of the cornea to go on, perforation of the cornea would surely follow in 24 hours and blindness as the inevitable result. The operation was suggested to the patient yesterday, but he refused, and it was only by suffering 24 hours more of torture and agony that, to-day, he is even willing to have the eyeball removed to get relief. You will frequently have many cases with serious affections hanging over them, which necessarily require prompt action; and, if the patient or, what is worse, at times, the friends of the patient, refuse to heed your advice, you must withdraw and let the patient assume the dire results which will surely follow.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

PARACOTOIN.—From the bark of a Bolivian tree called paracote. Very light yellow crystalline powder, free from odor and taste, difficultly soluble in water, E., more readily in A. Antiseptic, simple gastritis, diarrhea of consumption and of cholera nostras. Antisudorific (colliquative sweating of phthisis; dose, two to three grains).

PARAFORM.—Polymeric modification of formaldehyde. White crystalline, insoluble in water. Intestinal antiseptic.

PELAGIN.—An ethereal solution of antipyrine, cocaine and caffeine. Has been recommended for sea-sickness.

PELLETIERINE (Punicine).—Alkaloid from the root bark of *punica granatum*. Colorless liquid soluble in 20 water. Anthelmintic tenicide. Dose, five to six grains, followed in half an hour by a laxative of senna or jalap.

PELLETIERINE SULPHATE.—Thick liquid. Uses, etc., under pelletierine. Dose, five to eight grains, followed by a purgative.

PELLETIERINE TANNATE.—Yellowish, pulverulent mass, with astringent taste, soluble in 700 water and 80 A. Especially commended as being insoluble. Dose, twenty-five grains, followed by a purgative.

PENTAL (tri-methyl-ethylene, Beta iso-amylene).—Colorless, stable liquid, sp. gr. 0.72, insoluble in water, soluble in A., C. E. Vapor is highly inflammable. Anesthetic. Dose, two or three drachms by inhalation through Junker's apparatus.

PHENOPYRIN.—From equal parts of phenol and antipyrin. Colorless, oily liquid, insoluble in cold water.

PHENACETINE (acet-phenetidine).—Colorless, tasteless, inodorous, lustrous scales, sparingly soluble in cold water, more readily in hot water, and in 16 A. Dose, as antipyretic, eight to twelve grains hourly or every two hours, as analgesic (neuralgia, rheumatism) fifteen grains. Maximum daily dose, ninety grains.

PHENOLID.—Said to be a mixture of acetanilid and sodium salicylate.

PHENOLIN.—A solution of crude cresols in soap, resembling lysol.

PHENOSALYL.—A mixture of carbolic, salicylic and benzoic acids, dissolved in lactic acid, with or without the addition of glycerin. Clear syrupy liquid, soluble in 15 water. Antiseptic (in surgery, one to two per cent. solutions), one per cent. ointment.

PHENYLHYDRAZIN HYDROCHLORIDE.—Small yellowish-white scales, soluble in A. Used as a test for glucose in urine.

PHOTOXYLIN.—A nitro-cellulose prepared from wood, resembling pyroxylin. Soluble in equal parts of E and A. Leaves a stronger film than pyroxylin. Used in plastic surgery, in three to five per cent. solution.

PICROL (potassium di-iodo-resorcin-monosulphonate).—Analogue of sozoiodol. Colorless, odorless, crystalline powder, acid in reaction; soluble in A. E. collodion, W. Contains 52.8 per cent. of iodine. Recommended as non-poisonous substitute for iodoform.

PILOCARPINE HYDROCHLORIDE.—White, microscopic crystals, soluble in W., A., slightly in E. C. Powerful diaphoretic in diseases of

the respiratory tract, rheumatism and cutaneous diseases. Antidote to ether; used in hair tonics. Dose, 1-3 to 1-2 grain per day.

PIPERAZINE (Piperazidine; ethylenimine; diethylen-diamine; dispermine).—Synthetic alkaloid. Vitreous, lustrous crystals, very soluble in W. Aqueous solution strongly alkaline, but almost tasteless. Antilithic, anti-rheumatic (gout, etc.). Dose, fifteen grains daily, in one pint of aerated water. Frequently combined with phenocoll.

PIPERINE.—Alkaloid from piper nigrum. When pure, is colorless, and has but little pungency; usually contaminated with resin; yellowish, pungent. Insoluble in W. E.; soluble in A. and acids. Laxative and antipyretic. Dose, one to ten grains, in powder or pill.

PIPIRONAL (Heliotropin).—Decomposition product of piperine. Small, white crystals, soluble in A., E.; insoluble in W. Antiseptic, antipyretic; chiefly employed in perfumery. Dose, eight to fifteen grains, every three hours.

PIXOL (resol).—Preparation of wood tar resembling lysol, which is from coal tar.

POLYSOLVE (solvin. Phenol-sulphoricinate).—A mixture of one part phenol with four parts sodium sulphoricinate. Recommended for diphtheria. Said to produce toxic effects similar to those of saponin.

POTASSIUM DITHIOCARBONATE.—Orange-red, deliquescent crystals, readily soluble in water. Used in five per cent. ointments in cutaneous affections, like ichthyol.

POTASSIUM OSMATE.—Violet-red crystalline powder, soluble in water. Used combined with bromides, in epilepsy, subcutaneously in neuralgias, goitre, etc. Dose, 1-60 grain. Daily dose, 1-40 grain.

PYOCTANIN.—The blue is apparently a mixture of methyl violets, the yellow an auramine. Powder, soluble in 30 boiling, 75 cold water, 12 A., 50 glycerin, C. Antiseptic, disinfectant local analgesic. Applied pure or in solution.

PYOCTANIN PENCILS.—Blue or yellow, large or small.

PYRIDINE.—Colorless, limpid liquid, of empyreumatic odor and biting taste. Miscible with water, A., E., benzine, fatty oils. Cardiac stimulant, locally in diphtheria, by inhalation (60 to 75 minims), evaporated and inhaled. In large doses poison.

QUINALGEN (benzalgen; orthoxyethoxy-ana-monobenzoyl amidoquinoline). Colorless, tasteless crystals or powder, soluble in acids. Practically insoluble in water, A. Analgesic (migraine, gout, rheumatism, etc.). Doses, five to fifteen grains, three to four times daily.

RESOL.—Preparation of wood tar resembling lysol, which is made from coal tar.

RESORBIN.—An emulsion of almond oil and wax, with water, gelatin or soap; not stable.

RESORCIN (meta-dihydroxy-benzene, resorcinol). Colorless or slightly yellowish crystals, with a barely perceptible urinous odor, and a disagreeable sweetish, pungent taste. Soluble in water, A.; insoluble in benzine, C. Antiseptic, antipyretic. Applied like carbolic acid, but non-irritant and less toxic. Dose, sedative (nausea, one to two grains, asthma, fifteen grains.)

RESORCINOL.—Generally applied to resorcin. The name has also been applied to a brown amorphous combination of equal parts of resorcin and iodoform. Has been used in the treatment of chancre, atoni wounds, gangrenous sores, etc.

Prescriptions.

FOR REMOVAL OF WARTS.

Hydrarg. bichlor. 5 gr.
 Acid salicyl. 1 dr.
 Collodion 1 oz.

M.—Apply once a day, removing the crust each time before a fresh application is made. If necessary, the mercuric chloride may be increased to thirty grains in the same amount of collodion.

Four applications are usually sufficient for removal by gentle traction; after which dress with simple ointment, as may be necessary.

—Indian Lancet.

TO RELIEVE THE THIRST OF DIABETICS.

Pilocarpin may be administered in solution or in pill form. The pills are best prepared by the addition of glycerin and gum arabic. Each contains one-sixth grain of pilocarpin nitrate. For the solution the following form is given:

Pilocarpin nitrat. ½ gr.
 Spirit vini dilut. 20 drops.
 Aquae 1 dr.

M.—Sig.: The tongue is to be moistened with five or six drops of this solution four or five times daily.

—Nouv. Remedies.

TREATMENT OF MIGRAINE.

In the Gazzetta Medica di Roma, the following formula is recommended in the treatment of migraine:

Citrate caffeine 20 gr.
 Phenacetine 30 gr.
 White sugar 15 gr.
 Sufficient for ten capsules.

One every three to four hours during the period of the attack.

—Indian Lancet.

ERGOT FOR PERIODICAL HEADACHE.

Cappellari reports three chronic cases which had proved rebellious to ordinary remedies, treated with large doses

of the fluid extract of this drug; elixir of quinine was added to overcome the nauseous taste.

Nausea and vomiting is apt to occur if equal parts of each drug are given, in which case they may be given by enema.

—La Riforma Medica, Med. Age.

CHRONIC DIARRHEA AND DYS-ENTERY.

R. Sulphate of copper 1 gr.
 Sulphate of morphine 1 gr.
 Sulphate of quinine 24 gr.

Make twelve pills. One three times a day.

—Medical Record.

ARTIFICIAL FEEDING OF INFANTS.

Griffith says: "I do not advise using milk diluted with plain water for young babies under four months old. The simplest and most common used dilutant is barley water, which is almost entirely innutritious, its action being purely mechanical in breaking up the casein."

—Cincinnati Lancet-Clinic.

CHRONIC ECZEMA.

R. Liquor carbonis detergen. ... 30 drops
 Hydrarg. ammoniat. 20 grs.
 Ung. zinci. oxid. ½ oz.
 Vaseline ½ oz.

Sig: Apply topically.

Behring's Law says that the blood and blood-serum of an individual which has been artificially rendered immune against a certain infectious disease may be transferred into another individual with the effect to render the latter also immune, no matter how susceptible this animal is to the disease in question.

—Practitioner.

ACNE ROSACEA.

Dr. Allan Jamieson, of Edinburgh,

treats the above troublesome disease as follows:

—London Medical Times.

R. Sulphur. precip.	1 dr.
Calaminæ prepar.	2 dr.
Zinci oxid.	1 dr.
Glycerini	1 dr.
Aquæ dest.	4 oz.

Rt. lotio.

Sig: The lotion to be shaken, then painted on with a camel's hair brush at night.

In the morning the face is washed with a little warm water (no soap) and powdered over with the following:

R. Acidi borici.	10 parts
Talci	15 parts
H. pulv.	

Sig.—To be applied every morning. A proper diet and looking to the functions of the bowels are very important adjuvants. Locally, the use of Vlemingkx's solution, followed by the application of the following ointment, will be followed by good results:

R. Hydrarg. oleat. 5 per cent.	
Sulphuris loti	$\frac{1}{2}$ dr.
Ung. aquæ rosæ	1 oz.

Sig: Rub in thin each morning.

HYSTERICAL APHONIA.

Dr. Kebbell states that he has found the application of ethyl chloride to the nape of the neck most efficient in the treatment of this troublesome affection.

It is applied suddenly, to the extent of making a frozen patch the size of a shilling, and repeated if necessary. It is useful, because more convenient than the application of electricity. The results in the two cases given appear to confirm his opinion.

—Lancet.

GOUT.

The management of gout is chiefly a question of hygiene, which

treatment includes not only the modification of air, mode of life, food and drink, but also the skilful use of drugs. Dr. W. H. Draper and others have found by clinical experience that some gouty patients do well on animal diet, thus controverting the theoretical conclusion that meat is to be avoided. Dr. Draper thinks that a gouty patient does best upon a diet in which there is a good proportion of proteid food, along with a fair amount of starchy food as well. There is no specific drug treatment for gout.

—Medical News.

LUPUS.

Dr. H. Marson has successfully treated a case of lupus with thyroid extract. The boy took three pellets a day for seven weeks.

—British Medical Journal.

NEW TEST FOR ALBUMEN.

Barral (Lyon Med.) describes a new test for albumen. This is "aseptol," which is a mixture of equal parts of sulphuric acid at 60 degrees C. and pure phenol. The test is extremely sensitive and detects albumen if present in such small quantities as three or four milligrammes per litre. Aseptol dissolves phosphates and urates, but precipitates mucus and peptones.

—British Medical Journal.

LEUKOPLAKIA.

Leishkow recommends the frequent application of the following paste:

R. Resorcin	45 gr.
Terræ silicæ	22 $\frac{1}{2}$ gr.
Adipis	1 oz.

Apply on pledgets of cotton wool.

—London Medical Times.

For Physicians' Wives

LOVE'S ANATOMY.

My subclavian fossa disgusts her,
 She scorns my parietal bone;
 Yet sweet is my love as the morning
 That breaks in a tropical zone.
 To her I will bend my patella,
 On her fix my optical ray;
 In thinking of her my medulla
 Will wear all its "pia" away.
 Yet, tho' perish my poor oblongata,
 And the pith of my ossa decay,
 Still to me she's the persona grata
 I most like to find in my way.
 —Fun, London.

IT IS, INDEED!

Ex-Baby—"Mamma, where did the baby come from?"

Mamma—"From heaven, my darling."

Ex-Baby—"It's a pity the kid didn't know when he was well off."

—Fibre and Fabric.

UNFINISHED.

Willie has a critical eye, and, finding the new-born baby without teeth or hair, insisted that baby was unfinished and another doctor should be employed.

—Medical Age.

SCIENCE IN THE KITCHEN.

This is the golden age of science, from which uncertainty has been banished. Life has been reduced to a system; we live and move and have our being by a set of rules immutable as the laws of the Medes and Per-

sians, and woe betide that unfortunate wight who trespasses. Science has held its lamp aloft and thrown its rays of heavenly light into every corner of every department of the house of life, even into that corner of unscientific woman, the kitchen. And the light has revealed many strange and wonderful things, among others the fact that as a race we have known very little about the science of eating.

The preparation of food in a scientific way seems to be one of the most important branches of human knowledge, and yet it has only been during the past half century that scientists have given the subject any attention whatever. Baron Liebig, in Germany, was a pioneer in this study, and in our own country Professor Atwater, an officer of the agricultural department, has done much to advance the science.

It is remarkable how far wrong some of our time-honored traditions and ideas are shown to be, under the investigations conducted by these scientists. For instance, housekeepers who have been for years priding themselves upon the snow-white bread they baked were at first dismayed to learn that white bread is all a mistake, being not only deficient in important food elements, but being also positively detrimental to the health. Fortunately, however, the dismay of the housekeepers has been turned to joy by the discovery of a process of making whole wheat flour, by which all the gluten of the wheat—one of the most important of food elements—is retained.

Whole wheat flour must not be confused with Graham flour, which contains the husks or bran of the wheat that cause irritation to the digestive organs. The whole wheat flour is free from the bran, but it is claimed not a particle of the gluten is lost. It makes a bread of a rich golden brown color, delicious to the taste, of easy digestion and of great nutritive value. Of course physicians and cooking schools recommend the use of whole wheat flour, with the result that its use has spread rapidly, and soon everyone will have ceased to regard the making of fine, snow-white bread a special accomplishment.

This is only one of the many revolutions science is making in the kitchen. The wise woman is the one who adapts herself to new conditions and learns the economy of scientific living.

—Womankind.

PREVENTION BETTER THAN CURE.

The woman's daily nap has long been a foregone conclusion, but it is a privilege granted her rather through indulgence as a harmless weakness than through any sense of its vital importance as a recuperative measure. But the indulgence she has, and that is the important point, and she no longer feels ashamed of lying down in the middle of the days, when nature demands such a restorative. And to its efficacy as a recuperative measure thousands of women can testify.

Now, having disposed of the women summarily, let us consider the men. But first let us consider just what a nap is and its function. A nap is a short sleep, and may be varied in length from thirty seconds to thirty minutes. After that it is no longer, strictly speaking, a nap. In the middle of the day the weariness which we experience is not so much that of body as of brain. What we need is a complete relaxation for a short space of time. If we obtain this we can return to work with a renewed vigor, unhampered by that

languor and laggishness which is apt to accompany a hard sleep in the middle of the day. We have no opportunity for the sleep to grow lighter and lighter, as is the case at night.

Now, who needs greater relaxation of brain than the business man? No one! And if every business man would accustom himself to taking even thirty seconds' nap each day the tension on his brain would be absolutely removed for that length of time. And the benefit derived is not to be computed in comparison with the time expended, for thirty times thirty seconds will be added at the end of his days of usefulness if he cares for himself in this way.

Many of our "nervous diseases," as they are now termed, arise purely from lack of sleep at some period in our lives, and our business man has it, to a degree, in his power to prevent their attack upon himself by permitting himself the indulgence of a mid-day "forty winks." Don't let him be ashamed of needing it from the standpoint that it is an evidence of approaching age. Rather let him consider it an evidence of good sense.

DRINKS FOR THE SICK.

Drinks, properly prepared, are quite as important to the sickroom as food. Especially during the summer season, and when suffering from febrile conditions, will the value and advantage of cooling and refrigerant drinks be appreciated; while mucilaginous demulcent fluids will be found soothing to irritable states of the alimentary canal and pulmonary and urinary systems.

Imperial Drink—Dissolve from two to three drams of cream of tartar in a quart of boiling water, add the juice of one lemon and a little lemon peel, and sweeten with sugar. When cold it may be taken freely as a cooling drink and diuretic. A valuable drink in threatened sunstroke and passive congestion of the brain.

Lemonade—Pare thinly the rind of a lemon, and cut the lemon into slices. Put the peel and sliced lemon into a jug with an ounce of white sugar,

and pour over them one pint of boiling water. Cover the jug closely, and digest until cold. Strain or pour off the liquid. Citron may be used instead of lemon, and likewise furnishes a grateful and refreshing refrigerant beverage.

Milk Lemonade—Sugar, one and a half pounds, dissolved in a quart of boiling water, together with half a pint of lemon juice and one and a half pints of milk. This makes a cooling, agreeable, nourishing beverage.

Linseed Tea—Place in a jug one ounce of bruised linseed, two drams of bruised licorice root, half ounce white sugar and two tablespoonfuls of lemon juice, and pour over them one pint of boiling water. Cover lightly, and digest for three or four hours near a fire. Strain through linen before using. This makes a mucilaginous liquid possessing demulcent properties, and of special value in bronchial and urinary affections.

Barley Water with White of Egg—Take a tablespoonful of coarse barley and wash well with cold water, rejecting the washings. Then boil for an hour or more with a pint and a half of clean water, in a covered vessel or saucepan. Add a pinch of salt, enough sugar to render palatable, and strain. To four or six ounces of barley water thus prepared add the white of one egg. The value of this preparation in gastro-intestinal inflammation and irritation is not easily over-estimated. In the enterocolitis of very young infants, its exclusive administration for thirty-six and forty-eight hours will often relieve when all other measures have failed.

When a patient cannot be raised from the bed without risk of exhaustion, a medicine tube or crockery feeder should be used, but the same appliance, or even one of the same appearance, should not be used for administering both food and medicine. The patient's mouth should be kept clean and fresh, as should also all external surroundings.

—Dietetic and Hygienic Gazette.

In Science of January 31st Professor Henry F. Osborn, of Columbia College, pays a very appreciative "memorial tribute" to Huxley, in which he deals with the man as well as with the scientist. He quotes the following story, which Huxley used to tell of his experience as a lecturer:

In my early period as a lecturer I had very little confidence in my general powers, but one thing I prided myself upon was clearness. I was once talking of the brain before a large mixed audience, and soon began to feel that no one in the room understood me. Finally I saw the thoroughly interested face of a woman auditor, and took consolation in delivering the remainder of the lecture to her. At the close my feeling as to her interest was confirmed when she came up and asked if she might put one question upon a single point which she had not quite understood. "Certainly," I replied. "Now, Professor," she said, "is the cerebellum inside or outside of the skull?"

This reminds us of another story, for the truth of which we can vouch. An eminent laryngologist, now gone where, "beyond these voices," there are no vocal cords, had lectured on voice production to a large audience of singing masters, actors and public speakers, and was greatly praised for the lucidity of his exposition. The learned lecturer's self-satisfaction was, however, somewhat dashed, when one of the most successful maestri called some days later, and after expressing his grateful sense of the scientific enlightenment which he had received, said there was just one little doubt which he would be glad to have cleared up: Were the vocal cords placed transversely or longitudinally in the throat? The following story of Huxley's about babies is also characteristic:

When a fond mother calls upon me to admire her baby I never fail to respond, and, while cooing appropriately, I take advantage of an opportunity gently to ascertain whether the soles of its feet turn in, and tend to support my theory of arboreal descent.

—British Medical Jour.

The Times and Register.

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Original

THE HIPPOCRATIC OATH.

BY. W. S. BROWN, M. D., STONE-
HAM, MASS.

The recent trial in London, Kitson vs. Playfair and wife, opens up a serious question for the medical profession to answer, namely, is a physician justified, under any circumstances, in revealing a secret confided to him? The defendant, Dr. William S. Playfair, is professor of obstetrics in King's College, London, with a lucrative practice in fashionable circles; and a jury has awarded the plaintiff, Mrs. Kitson, damages amounting to \$60,000, for betraying a professional secret. The circumstances are briefly these: Mrs. Kitson is an Australian lady, wife of Mr. Arthur Kitson, the husband's reputation for morality being rather below par. At all events, the lady has had four or five miscarriages, and has been under some doctor's care most of the time since her marriage. She came to England alone, towards the end of 1892. Latterly she was attended by Dr. Williams, who called Dr. Playfair in consultation. On Febru-

ary 23, 1894, she was placed under chloroform, and examined by both practitioners. Dr. Playfair, during the legal trial, testified that "he found the neck of the womb dilated to the size of a five-shilling piece." He found a spongy mass inside, which "he at first took to be an intra-uterine cancerous growth. The mass was not growing from the interior of the womb, and it was easily scooped out and removed. On removing the mass, he specially examined it, and found it to be a small portion of fresh placental tissue, of a spongy consistence, and containing fresh blood in its interstices. He said to Dr. Williams, 'she must certainly have had a recent miscarriage.' The mass removed was not a blighted ovum."

This last remark referred to a statement by Dr. Spencer, professor of midwifery in University College, London, who was "of opinion that the body removed in February, 1894,



might have remained in the uterus since October, 1892. What witness was shown was a piece of a dried blighted ovum."

Dr. Playfair also testified that "the plaintiff had told him, prior to the operation, that she had not menstruated since December, or thereabouts, and that menstruation had always been regular." During the cross-examination he stated that "he had formed an opinion adverse to the honor of the lady on February 23, and still holds its."

I do not propose to discuss the legal aspect of this case; but, there are two or three points which require to be taken into account in forming an opinion as to its medical bearings. The husband, Mr. Arthur Kitson, is a brother of Dr. Playfair's wife. The sum claimed as damages was only \$25,000, and the jury gave a verdict for \$60,000. On account of relationship, Dr. Playfair made no charge for his professional services.

I do not know whether Dr. Playfair ever took the Hippocratic oath or not. Oaths (except profane ones) are going out of fashion nowadays, and with good reason. They are a remnant of barbarism. For no honest man is more likely to tell the truth after swearing to do so than before; and dishonest men do not usually stick at trifles. Here is a verbatim copy of the Hippocratic Oath, taken from the Sydenham Society, edition of the works of Hippocrates:

"I swear by Apollo, the physician, and Esculapius, and Health, and All-Heal, and all the gods and goddesses, that, according to my ability and judgment, I will keep this Oath and this stipulation—to reckon him who taught me this Art equally dear to me as my parents, to share my substance with him, and relieve his necessities if required; to look upon his offspring in the same footing as my own brothers, and to teach them this Art, if they shall wish to learn it, without fee or stipulation; and that by precept, lecture and every other mode of instruction, I will impart a knowledge of the Art to my own sons, and those of my teachers, and to disciples bound by a stipulation and

oath according to the law of medicine, but to none others. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and, in like manner, I will not give to a woman a pessary to produce abortion. With purity and with holiness I will pass my life and practice my Art. I will not cut persons laboring under the stone, but will leave this to be done by men who are practitioners of this work. Just whatever houses I enter I will go into them for the benefit of the sick, and will abstain from every voluntary act of mischief and corruption; and, further, from the seduction of females or males, if freemen and slaves. Whatever, in connection with my professional practice, or not in connection with it, I see or hear in the life of men which ought not to be spoken of abroad, I will not divulge, as reckoning that all such should be kept secret. While I continue to keep this Oath unviolated, may it be granted to me to enjoy life and the practice of the Art, respected by all men, in all times! But, should I trespass and violate this Oath, may the reverse be my lot!"

The Hippocratic Oath (minus its Pagan and local features) is no longer administered to medical graduates: but its essential principles are as worthy of observance to-day as they ever were. Is a physician justified, under any circumstances, in revealing a secret confided to him professionally? I reply, no, emphatically no! And there are at least two good reasons which seem to me to settle the question.

First, the uncertainty of histological and pathological evidence. Here we have two obstetricians, occupying chairs in celebrated London colleges—not tyros, but experienced, talented teachers—one of whom testifies that a spongy mass, removed from the uterus, is a piece of fresh placental tissue, and the other, that it is a piece of a blighted ovum! Since the

trial, a writer, in the British Medical Journal, says:

"Chorionic villi are very prominent, pretty-looking objects when seen in microscopic sections, but it is not always that we can swear to them. Other structures may simulate them. Admixture with blood may partly destroy the villi, and greatly modify their appearance. * * * The very nature of the placenta offers great difficulties for evidence of the kind required for legal evidence."

I admit that cases occur in which the proofs of conception are decisive; but it is surely our duty, in all doubtful cases, to give our patient the benefit of the doubt, and keep the suspicion to ourselves. I think that a physician is not even justified in expressing his suspicions to a consultant. He should first be absolutely sure. A woman's moral character should not be impugned on the doubtful evidence of microscopic sections.

Second, the notorious uncertainties of the law itself. This very trial demonstrates the unreliability of legal opinions. The lawyers on both sides wriggled through a quagmire of doubt. In every case, a conscientious man must make up his own mind what his duty is, and be governed by that, regardless of legal consequences. It would be better to go to jail for "contempt of Court," than go to Coventry for betraying a patient's secret. During this trial, the question was raised whether Dr. Playfair was not privileged to tell his wife, as a family secret. I hold that a secret

ceases to be a secret at all when told to anybody; and the last person a physician should gossip to is his own wife.

The essence of the Hippocratic Oath is embodied in the French law, which makes "the betrayal of professional confidence a punishable offense." In the State of New York, the law says, "No person duly authorized to practice physic or surgery shall be allowed or compelled to disclose any information which he may have acquired in attending any patient in his professional character." I am told that there is no special law in Massachusetts anent betrayal of professional secrets; but the injured party could prosecute under the common law.

In this comparatively enlightened period, physicians do not need an oath to induce them to keep professional secrets; most of them do so. If a medical practitioner is not prompted to remain silent from a sense of honor, he is likely to do so from a sense of pocket; for a man must be a fool who habitually lets out his patients' secrets.

As far as law is concerned, I do not see why we are not as much entitled to professional privilege as lawyers or Catholic priests. A lawyer is not compelled to divulge his client's confession; neither is a priest. I claim that our profession is as necessary to public welfare as either law or religion—in some respects more so—and that it should be our privilege, as it is our duty, to keep the essence of the Hippocratic Oath.



VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

(Continued from May 9th)

THERMOSTASIS OR THERMO- THERAPY.

We have seen that the too general or injudicious use of intense heat may lead to evil consequences when employed for styptic purposes in the presence of hemorrhage. Now, let us see what may be the legitimate range of its employment in operative surgery.

The cases in which thermostasis may be utilized, with signal advantage, are found in two classes.

The first is purely operative, and the second are pathological.

In the former class are embraced "bleeders," or cases of hemophilia, when a sudden congelation of the parenchymatous vessels is demanded, and a physical condition is necessary similar to hemopexia. Pressure, ligation and astringents fail and the watery blood persistently issues up through the divided tissues. Here the cautery-iron cautiously applied is a sovereign remedy. In passing it may be observed that the pathology of this state of the blood is yet a mystery, for it sometimes is met with in the florid and vigorous, as well as the delicate or debilitated, and, with the conscientious, cautious surgeon this is always borne in mind, as one of the many accidents which may imperil life, when an operation is undertaken in any part of the body where the vessels lie remote from the surface.

In the form of epistaxis we commonly meet with it in hospitals in chronic alcoholics. When the blood is wanting in the coagulating principle; in hemorrhage from any of the passages, as the result of ulceration of an organ, as the stomach, lungs, rectum, or bladder, when it may promptly prove fatal, in spite of any-

thing we may do to arrest it. *Such a case of vesical hemorrhage in woman, came under my care, in consultation recently; an uncontrollable vesical bleeding suddenly ending life. The thermo or electro-cautery may be utilized to close the spouting mouths of divided, small arteries, but for the larger vessels it is quite useless, unless an extensive charring of the adjacent tissue is made.

In the cavities, because of the intense reaction which may sometimes follow its incautious employment, it should be entirely abandoned. It was hoped that in the surgery of the pelvic organs its use might solve the problem of efficient and reliable hemostasis, after division of thick pedicles, or tissues not readily accessible to ligation.

But, it must be confessed that, while theoretically it is the ideal, practically it is full of peril. It is true that it is a deadly germicide, but, unfortunately, its lethal action extends to the living protoplasmic elements, and so intense may be the reaction following its employment that the engorged capillaries, exude an enormous quantity of fibrogenous, plastic material, which in organization, welds all the adjacent serous surface into one mass; thereby, perchance, leaving a condition vastly more serious and distressing than that for which the operation was undertaken. In one instance coming under my notice, after clipping away an ovary, the operator seared the stump lightly with the thermo-cautery. A few days later it was found that feces were coming up through the abdominal wound.

*Fatal case of vesical hemorrhage in a female.—India Lancet, Calcutta, May 2, 1896.

On examination it was found that the inflammatory reaction had extended into the wall of the sigmoid and produced a patch of gangrene nearly half the circumference of the bowel. The best that could be done for the unfortunate creature was to leave her with an artificial anus, as the point of perforation was too near the fixed rectum to permit of an anastomosis. This was before the Murphy-button was invented, though it was an ideal case for its employment.

From the foregoing, it may be gathered that thermo-therapy in operative hemorrhage should be employed only in rare and unusual cases, and then only as a dernier resort.

In pathological conditions the circumstances are altogether different, for here the potential cautery is most commonly employed for a double purpose, first as a hemostatic, and next as a therapeutic agent of great value.

In languid ulcers on the periphery, extending into the vascular areas, especially those of a specific or tubercular nature, white heat not only arrests hemorrhage, but provokes a healthy reaction in the diseased tissues.

In these cases the blood is wanting in coagulable ferment, and continues to ooze from the mouth of a small artery, deeply hidden, under the fungous ridge of granular tissues.

We witness this condition to the best advantage in arterial papillomata of the female urethra, in the rectum, vagina or in other situations.

The intima and muscularis of the artery ulcerate, leaving only the non-contractible adventitia. The leak is not large, but constant, and nothing less than a most painstaking examination will reveal the point of sanguinous escape. Some years ago a case illustrating this came under my notice in consultation. The patient was a man but lately over typhoid fever.

He had been having an almost constant discharge of blood from the mouth. It continually oozed through the interstices of the lower teeth, and had reduced him to a state of profound anemia. Ice and astringents had been tried in vain.

The gums were somewhat spongy and congested, and it was thought that the hemorrhage came from this source.

When he was brought into a strong, clear light and the mouth was widely opened it was found that the source of bleeding was an ulcer under the frenum-linguae, involving the ranine-artery.

A touch of the thermo-cautery readily arrested the bleeding and later stimulated the tissues to healthy reparative action.

It is necessary in the use of the cautery that the sound tissues are not encroached on by it. Caution, discrimination and judgment are imperative, in order that we may derive the largest amount of benefit from this potential and salutary agent, in a very large number of pathological conditions, in which it acts as a powerful alterant as well as a prompt and reliable styptic.



AN ADDRESS

To the Graduating Class of the Medico-Chirurgical College of Philadelphia, Pa., at the Academy of Music, May 13, 1896.

BY L. WEBSTER FOX, M. D.,

Professor of Ophthalmology in the Medico-Chirurgical College.

I bring to the members of the graduating class the heartiest felicitations of the Board of Trustees and the faculty. To-day you will receive from the president of the college a diploma for which you have worked earnestly and untiringly for three years—a diploma which binds you to the ending and beginning of your work in life. Guard well this parchment, and let it ever be to you an incentive to higher and nobler deeds.

As your valedictorian, chosen by your faculty to give expression to their feelings and sentiments and also to offer such words of counsel and encouragement which might enable you to feel more securely the new relationship which you bear to life and your chosen vocation, I stand before you in that humble and unenviable position as orator of the day.

Gentlemen, you must be congratulated upon living at a time when great results are obtained, when science is doing more for the preservation of the human race and alleviating the suffering and anguish of the sick-bed than at any period of the world's history; throughout the medical and scientific world everything is being revolutionized at a rate fearful for us to grasp.

Science has carried the human voice to the confines of a continent, and even opaque substances become as transparent as air. Medicine to-day is on the edge of a future almost too wonderful for the most extravagant dreams of a Paracelsus. The last decade has made such revolutions in medicine and surgery that age in the physician is a disqualification. Look at the work of the young experimenters in the laboratories of this and European countries. Note the result of the antitoxins or the serum treatment and its appli-

cation, as well as the gradual development of preventive medicines.

Do not think your student days have ended; they have only begun. Keep the search light bright and ever shining; work and wait. This is the age of youth's achievement. It is not necessary for me to recall to your memories the successful work done by the younger members of the sister professions. Secular history is full of the capabilities of young men. In the language of one of Philadelphia's brightest young attorney's I repeat: "That to hold the world of equilibrium the conservative judgment of age is doubtless necessary, but without the swift intuitions, the radical spirit and courage of youth, the best of history had not been."

Let us look, for a moment, into the history of our own profession. Medicine as it was known to the ancients was surrounded with mysticism. The priest, who seemed to be endowed with more knowledge than the average man of his time, was a healer, and to those afflicted oft-times he applied the vilest remedies. The dawn of our profession dates to the works of Esculapius, followed later by Hippocrates, and through the labyrinth of time to Galen, who, probably, was the ablest man of his day. So important were his discourses as to the causation of disease and the treatment that for over a thousand years his teachings were followed. It was only, however, when William Harvey, John Hunter, and men of like ability for investigation, analyzing and applying the results of their labors, that medicine received its fullest impetus towards becoming a science. It was, however, left for this century to revolutionize the theory and practice of medicine.

Philadelphia has always led the

way in this country as an educational centre. One hundred years ago the only scientific society that was not in Philadelphia was the American Academy, of Boston. We had the first philosophical society, the first natural history museum, the first circulating library, and the first medical school. The University of Pennsylvania—that mother of medical colleges!—became a university one year before Harvard rose to the same distinction.

Your college prides herself upon having earnest, faithful and conscientious teachers, zealous in the prosecution of their work. She also congratulates herself in taking a front rank in the great medical centre of the United States.

It is the purpose of the Honorable Board of Trustees and Faculty to maintain the stand it has taken, to advance from year to year, and to convince the profession and the public that the teachings in this institution will be the best in the land. Your class has seen many changes in the growth of the college and hospital. Other developments are under contemplation which will make your school fully equipped to the demands of scientific and practical medicine. The new amphitheatre—the laying of whose corner-stone you witnessed yesterday, one of the largest and best equipped in the country—will be completed within the year. New laboratories and college extensions—all those additions must make you take a more fraternal interest in the progress of your alma mater.

As Marcus Aurelius has said, "Love the art which thou hast learned and be content with it; and pass through the rest of life like one who has intrusted to the gods with his whole soul all that he has, making thyself neither the tyrant nor the slave of any man." In your daily intercourse with your brother-practitioners treat them courteously, and preserve your dignity and at all times your personal equation.

In the various walks of life avarice stalks bravely through it all. Unfortunately, our profession is not free from it. Although there be "land-

rats and water-rats," it does not necessarily follow that you must be a Shylock. Do not demand the pound of flesh on all occasions. The man who is seeking how best to advance his financial condition through the infirmities or credulities of his patients degenerates into the quack and mountebank. The impoverished have always a claim upon us, and you and your obligations to your profession make it a Christian duty to respond. When, however, a patient can recompense you he should do so bountifully and in ratio to the good accomplished. This will be the most difficult task in your professional career, as you cannot measure professional ability by the yard stick or pound weight.

There is one subject upon which I must dwell for a few moments. You must pardon me for mentioning such matters, but the carelessness that is innate to the human being at times gets the better of us. Sometimes it might be attributed to eccentricity or genius. A hint on such occasions like this may be most valuable to you throughout your life-time. I refer to personal habits and manners. I once knew a brilliant, brainy student who was most untidy in his personal attire. He was asked why he persisted in appearing so before his classmates when we all knew he was financially able to do otherwise. He gave as his answer that it made him look like a genius. That may or may not have been so in the university town of Strassburg, but it is not to be tolerated in our country. Do not be so misguided. Keep your person clean and your clothes tidy—in other words, be well groomed. The person who is ill has a keen scent and an observing eye. You have been taught that the antiseptic precautions are the "sine qua non" to the successful termination of a surgical operation. Is it not well for the success which you hope to attain to be well dressed and well mannered?

There are such things as sick-room manners, which it behooves you to acquire as soon as possible. Do not enter a sick-room in a noisy manner, nor with your hat or overcoat on,

hands gloved, and mustache—if you have one—scented with the essence of tobacco. Never annoy your patient by sitting on the edge of the bed, nor by walking to the medicine bottle, taking out the cork, and licking the mouth of the bottle to see if the druggist has compounded your prescription properly. Never censure the nurse in the presence of the patient if you notice any delinquency in her duties. Do not disappoint your patient in the hour of your next visit; fix the time and try to be punctual. These rules are easily kept and go far toward making you a good beginning in the first years of your practice. But before I leave this subject I wish most emphatically to call your attention to the care of your hands, which should be kept scrupulously clean at all times. I remember once a physician who was called to attend patients in a newly-established hotel in a mountain district. This man, who had age as a qualification, was selected by the proprietor as a man fit for the position, although there was a recent graduate in the neighborhood. Several persons who became ill sent for the old physician. One touch of those hands, one look at those nails, with such evidence of mourning about them, caused the patients to refuse to see him again, and they sent for the young "antiseptic," who, by his cleanly habits and well-attired appearance, not only became the physician to the hotel, but to the district as well. Eventually he outgrew his neighborhood and is now one of the leading and fashionable physicians in a large city.

By the close relationship which you bear to the family in times of dire distress, being at times the unavoidable listener to the ravings of delirium, to exclamations which may be of the gravest import, or when parents will impart to you the inner secrets of their household, it behooves you, as men of honor, as men upon whom the social fabric of our existence rests, to maintain absolute secrecy upon all occasions. Your work is to alleviate and to hold together our social relationships, not

to break down by selling to the scandal-monger unsavory bits of gossip. A physician who would do this should be ostracized by his brother practitioners and community, and be looked upon as a moral leper.

Pitch your tent on an elevated plane; be exemplary, ambitious and moral; seek to deserve the confidence which the cloak of your profession throws about you; be the honorable man of your community.

You must now share the responsibilities of life; as your experiences increase the realities will not always be pleasing. The physician has to deal with sorrows, grief and anguish—sickness, pain and death. Many of you recall that beautiful, though pathetic, picture by Luke Fylds called "The Doctor." He has portrayed the every-day life of the physician better than any word-painting of mine. The picture represents the interior of a cottage; a very sick child lies on its primitive cot; near by the mother, hiding her face in her hands, shedding tears as if her heart would break; behind her the father, anxiously watching the physician, who is gazing intently upon his dying patient, noting the effect of his last potion, at the same time, in his heart of hearts, realizing that the little one is soon to pass away, and wondering how best to assuage the grief of these two parents, bowed down with so much woe. You will be the witness to many such heart-rending scenes.

There is one field which calls for your best abilities, and that is in the field of preventive medicine, which is almost entirely unexplored.

Look well toward preserving the good health of your people. It is not the physician who can cure his patients, but the one who prevents his fellow-men from getting ill who becomes the greater benefactor. Difficulties in this work may surround your path, but if the difficulties be not in yourselves you will win. Nature intended man to live one hundred years. It is abuses to which we subject ourselves which makes us fall before our time. It is your duty to guard well the health of the

community in which your lot is cast. If the laws of hygiene are followed to the letter, epidemics would not bring desolation to the homes of so many. All nations are establishing quarantine laws. We have State Boards of Health to stamp out diseases and thus prevent the spread of a pestilence, but with all this there is more aid needed from the young physician to further these good projects. European cities have long known that a good water supply means everything toward keeping their inhabitants in good health. London, Paris, Vienna and Liverpool have their water brought from sources where contamination is impossible. Even in India, where pestilence held its fullest sway, owing to religious fanatics, and where millions have fallen before this juggernaut, the physician has risen above it all and given to Calcutta one of the best-filtered water supplies of the world. The young physicians of this great city have a noble work before them of establishing a good filtering plant, so that we are not constantly reminded of the fact that to-day, to-morrow or next week we are about to absorb part of an ancestor. It is to the intelligent physician, aided by the enforcement of sanitary laws, based upon the best hy-

gienic principles, that the community is largely indebted for its good or poor health. As our population increases, so must these laws be made more stringent and the knowledge of the physician kept abreast of it.

Let me, in conclusion, exhort you to keep bright the escutcheon of your college, to advance in your profession, to become yourselves the very best, and, to quote the words of my esteemed friend, Mariott Brosius,* "By the example of your fidelity to the State and your devotion to the duties of citizenship, set the fashion for the masses who look up for guidance, and inspire them with your heroism in holding up the ideal of the supreme good and demanding submission to its behests, and thus become a pledge to the future of a citizenship, whose loyalty to the State, fidelity to duty, obedience to law, love of justice, and devotion to the highest and best aspirations of humanity will hasten that to-morrow of better things, in which the fine thought of Victor Hugo will bloom and fruit, and all will be united in the service of the common welfare, which is the 'Supreme Good.'"

*Hon. Mariott Brosius' address before the Alumni Association of the Medico-Chirurgical College.



Editorial

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THE ANTITOXIN TREATMENT OF DIPHTHERIA.

When the antitoxin fever first broke out among physicians, we cautioned a too rapid trust in this remedial agency, and predicted that it was, as yet, too early to contemplate the efficacy of its use in diphtheria, even by statistics.

We have been treated to numerous statistics from all sources, tending to show how the mortality has decreased (?) under the antitoxin treatment.

It is certainly refreshing to find now and then a physician who is unbiased by these fads, come out in an able article and discuss in a practical way these new theories.

Such an article has recently appeared in a late issue of the journal of the A. M. A., under the title of "Once More on Antitoxin," by Dr. Carl Struch, of Chicago.

The doctor first details the statistical reports of various cities, both foreign and domestic, showing that under antitoxin treatment we have a mortality varying from two per cent. to sixty-three per cent., "a difference hardly possible if the treatment were a specific."

"How much the statistic results of the serum-therapy must depend upon other influences we learn from the difference in the mortality, which various observers claim, as is shown in the following percentage figures:"

Stockholm 2, Holland 7, Minneapolis 8.4, Chicago 8.93, Paris Children's Hospital (Lebreton and Magdelaine 330 cases) 12, Rumpf 12, Ganghofer 12.72, Baginsky 13, France 13, Indianapolis 13, Bokai 14, Washburn 14, Hungary 14.3, Italy 14.4, Soltmann 14.6, Germany 14.8, Austria 14.9, St. Louis 15, Berlin 17.4, New York City 19, Constantini 22, Vienna 22.8, Kossel 23, England 23, Widerhofer 24, Roux, Martin, Chaillou 26, Milwaukee 27, Waingen 28, Korte in grave cases 58.2, medium 29.8, light 3.3, Gnaudinger 40, Trieste (252 cases) 63.

"There are other reports from which we learn that the difference in the mortality before and after the use of antitoxin does not at all give proof of the value of the serum. The Friedrichshain statistics, for instance, show the following mortality:"

1888, 32 per cent.; 1889, 34 per cent.; 1891, 1892, 1893, 38 per cent.; 1894 (February to November, serum period), 33 per cent.

"So in 1888, when no antitoxin was used, the mortality was lower than during the serum period in 1894. He notes the same feature in the Milwaukee statistics. In 1891 the death rate is lower than during the serum period in 1895:

MILWAUKEE.

Year.	Cases.	Deaths.	Per-centages.
1890	827	241	29.13
1891	1,489	400	26.79
1892	1,193	400	33.53
1893	620	209	33.71
1894	436	175	40.13
Total	4,565	1,425	31.19
Feb., 1895 . . .	433	117	27.02

"Very important are the statistics which show the actual number of deaths from diphtheria and croup in the city of Berlin, viz.:

1881, 1,953; 1882, 1,913; 1883 (severe epidemic), 2,561; 1884 (severe epidemic), 2,446; 1885, 1,802; 1886, 1,535; 1887, 1,304; 1888, 1,070; 1889, 1,252; 1890, 1,549; 1891, 1,057; 1892, 1,405; 1893 (serum period), 1,643; 1894 (serum period), 1,430.

"This table shows that the antitoxin did not cause any disease in the actual number of deaths from diphtheria, whatever, even allowing for the increase in population.

"Dr. N. Rosenthal, of Berlin, reports 271 cases which were treated (locally and generally) with sol. of sesquichlorid of iron, a mortality of 8.2 per cent. resulting. On the other hand we possess reports showing an increased mortality under the serum treatment. The *Lancet* of October 26, 1895, states that 'the mortality from diphtheria in London was more than 40 per cent. in excess of the corrected average for the fortieth week of the last decennial period,' in spite of the antitoxin. We also must consider that those statistics which are so much in favor of the serum treatment are not all objectionable. In regard to the statistics of Behring, the main representative of the serum-therapy, for instance, refers to an article, *Serum-therapy and Statistics*, by Dr. A. Gottstein, Berlin, which appeared in the *Therapeutische Monatshefte*, 1895, No. 11, and in which Behring's statistics is criticised in a very illucidating way by Gottstein,

presenting authentic figures which were furnished by the Royal Health Department of Berlin, and which relate to all Berlin hospitals and to all cases which were reported by local physicians, so that these figures represent a collective statistic of all Berlin. According to Gottstein the lower mortality must in a great measure be ascribed to the fact that since the introduction of the serum-therapy almost twice as many cases were reported as before, so that Behring does not go by the real number of cases which occurred, but by the number reported. Since 1884 there is existing in Berlin an ordinance making it obligatory for physicians to report diphtheria cases, and in 1887 disinfection was made compulsory. Everybody who knows to what inconveniences the general practitioner subjects his patients and himself in complying with these two ordinances will understand that perhaps the majority of the physicians ceased to report all of their cases, that in other words the number of reports decreased.

"In 1894 two Berlin physicians were indicted for not having reported diphtheria, and the State's attorney motioned for punishment by imprisonment, a circumstance which caused a rapid increase of the reports. Behring's own table shows this fact. There were reported:

	1st Quar.	2d Quar.	3d Quar.	4th Quar.
1889 . . .	978	945	1,075	1,243
1890 . . .	1,120	1,019	1,136	1,237
1891 . . .	830	763	763	1,086
1892 . . .	879	822	875	1,267
1893 . . .	1,027	952	1,107	1,275
1894 . . .	1,114	1,085	1,058	2,028

"So the fourth quarter of the year 1894 shows almost a duplication of the number of cases which were reported. Or does Behring believe that twice as many cases occurred? 'If he does,' says Gottstein, 'we can claim with the same right that the introduction of the serum-therapy was the cause of the increase of diphtheria.'

"If, however, twice as many cases were reported as before, it is not surprising that the death rate decreased for the figures undoubtedly

include many mild cases which previously were not reported.

A statistic which, it seems to him, does not carry much weight, is the one which emanates from our Chicago Health Department and which he finds reported in the periodical the *Clinique*, 1895, February 15, No. 11. It is stated in this statistic that since the introduction of the serum-therapy the mortality has decreased from about 52 per cent. to less than 9 per cent., a change which we should all welcome with delight were it not for the fact that the compilers of this report compared a statistic of 1047 cases treated with antitoxin to one of only 61 cases treated without it. Such a report is absolutely worthless, for the reason that comparative statistics should always relate to an almost equal number of cases. Besides the report fails to enlighten us as to what (drug) treatment was employed in the sixty-one cases.

"A statistic similar to that of Chicago was some time ago reported from Boston, where the mortality was said to have decreased from 50 to 16 per cent., the latter relating to sixty-nine cases, of which eleven died, quite a good percentage for a 'specific.'

"He personally believes that the mortality has decreased under the antitoxin treatment, but largely ascribes this decrease to the exclusion of the drug treatment, as also good results were obtained in the tuberculin treatment after creosote had been excluded.

"The report from the Kaiser and Kaiserin Hospital at Berlin seems to support this assertion. 'The average mortality in this hospital was in the neighborhood of 50 per cent. before the use of antitoxin, but upon its introduction the death rate was reduced to below 10 per cent. Then during two months (July and August), the supply of serum having failed, the death rate rose to the former general average, again to fall to the low rate upon the renewal of the antitoxin treatment.'

"This report deserves consideration in so far as we can exclude endemic conditions as being the cause of the

decrease of the death rate. It would, however, be very interesting to know what local and general treatment they used before the introduction of the antitoxin treatment and at the time, when the supply of serum failed. They certainly did not leave the cases without any treatment. If it was the old drug treatment we can easily explain the fluctuation in the mortality. Even Virchow, who was made an advocate of the serum-therapy by these 'brutal figures,' does not seem to have taken into consideration the effect of the interim treatment. It seems to me that the average practitioner does not sufficiently consider the harmfulness of the drug treatment, for we often hear a physician say that he used no other treatment besides the antitoxin and that he obtained splendid results, which, therefore, in his opinion could only be ascribed to the serum.

Dr. Struch thinks quite differently. "Just because he had not used any other treatment, he had such good results. Again, there are physicians who use antitoxin with their entire former treatment and claim to have obtained better results than before. But this does not prove much either, as apparent good results can be obtained even by a harmful treatment, if the endemic, epidemic and other conditions are favorable.'

"Still he finds as a rule that the drug treatment is either entirely excluded or applied in a modified form, when antitoxin is being used.

"In regard to local treatment, gargling, spraying, insufflating, swabbing and cauterizing,' he says, "now, suppose, but not admitted, that the bacilli diphtheria were the main part in the disease, and, suppose, that these bacilli were not burrowed in the mucous membrane, but were located right upon the diphtheritic membrane and could easily be reached by our manipulations, I do not understand what effect these manipulations would have. We know, and this has been proven by experiments, that a bacillus must be exposed to an antiseptic solution of a certain concentration for a certain length of time in order to be destroyed. If the an-

tiseptic solution is not of the necessary strength or if the bacillus is not exposed to the antiseptic for the necessary length of time, our efforts toward destroying the bacillus will be futile. I refer to Sternberg's Manual of Bacteriology (1893), in which he gives extensive tables of the effects of different antiseptic solutions upon the various bacilli.

"We must also consider that a far stronger solution than is required to kill bacilli will be necessary to destroy the spores. We must also consider that in presence of organic material in association with bacteria the disinfectant can be neutralized before the living bacteria are destroyed. For instance, the cholera bacillus in bouillon is destroyed in one-half hour by a solution of HgCl 1 to 6000, while in blood serum 1 to 800 was required to destroy it in the same time. These facts make our local treatment by antiseptics absolutely worthless and teach us that our raid on the bacilli by these means is all in vain. As far as gargling, spraying and insufflating are concerned, I think it impossible to reach the bacilli by these manipulations; even if it were possible the effect of the antiseptic would be of too short a duration to destroy the germ. Still I use gargling and spraying (merely with pure water) not to affect the bacilli but only for cleansing purposes and as a tonic to stimulate the circulation in the fauces. The other two manipulations, swabbing and cauterizing with antiseptics, astringents, etc., oppose the first law in the treatment of acute diseases, viz.: to give absolute rest to the diseased organ. Instead of doing so we keep up a continual irritation and congestion to the locus morbi.

"Furthermore, I think it entirely wrong to remove the diphtheritic membrane which is only the local manifestation of general toxemia. That the membrane is an inseparable factor of the process of the disease, although there is no satisfactory explanation for its existence, we see from the fact that as long as the fever and the general symptoms exist it quickly returns when removed,

while after their disappearance the dissolution of the membrane quickly follows.

"So it appears to me that our local treatment as such is merely illusory and valueless; it is based upon theoretical principles which are derived from experiments on bacterial cultures and which can never be carried out in practice. But the local treatment is not only worthless in itself, but very harmful otherwise. I have already mentioned the harm done by the continual irritation and congestion caused by swabbing and cauterizing, the removal of the membrane and the destroying of the tissue. Furthermore, we must consider that a part of the applied solution is always swallowed and absorbed into the system. And will we say that these drugs after having been absorbed do not cause toxic effects before we can ascertain these from outward appearances? But even if the drugs did not produce any direct toxic effects, they would disturb the natural healing process which represents those complex symptoms we generally call disease. They must be eliminated from our system, and this elimination depends in the last instance upon the vital energy which at the same time is engaged in overcoming the disease and in eliminating the products of the same. And it depends upon the severity of the infection and the amount of vital power the body possesses whether the patient recovers in spite of the two-fold demand or if he succumbs because his vital energy was not sufficient to cope with both disease and drugs. I need not say that I think the internal medication with antiseptics such as chlorate of potassium and the like just as injurious and illusory as the local treatment, for we will never succeed in making the blood an antiseptic solution to kill the bacillus or its products without destroying the blood itself. As great as the discovery of external antiseptics is, there will never be an internal antiseptics, and the sooner we entertain this idea the better for ourselves and our patients.

"I still maintain that the drug

treatment in diphtheria is merely imaginary and only produces ill effects which undoubtedly have a great influence upon the mortality and the course of the disease. And I do not see why the exclusion, even if only partial, of this treatment shall not give better results than we obtained before. The results with the present treatment of typhoid, for instance, are also not due exclusively to the hydriatic treatment, but in a great measure to the exclusion of the drug treatment.

"As long as no extensive investigations have been made into the combined drug and antitoxin treatment of diphtheria my assertion, that the exclusion of drugs is partially accountable for the better results, is not contradicted. Whoever has had sufficient experience with physiologic therapy will not at all be surprised at the lower mortality which is claimed for the antitoxin after excluding the drugs. He will only be surprised that not more patients died from diphtheria under the old drug poisoning, a treatment which evinced the wonderful capacity the vital power possesses and which showed how much a human being can endure.

He does not doubt a moment that many physicians have seen very favorable changes in the course of the disease under the antitoxin treatment, and he believes that such favorable changes lead more physicians to become followers of the antitoxin treatment than the statistics do. But the question is: Are these changes, even could we exclude endemic and epidemic conditions, to be ascribed exclusively to the serum? If we leave nature alone and do not disturb her wise provisions by applying drugs, the good results of which are merely imaginary and which only manifest toxic effects upon the system, we can see many most remarkable changes in the course of the disease, changes which we formerly made impossible by our drug treatment, and which we therefore can accomplish more readily by substituting the less harmful antitoxin.

He considers the serum-therapy less

harmful than the former drug treatment; still its employment does not seem to be altogether devoid of danger, and he calls attention to the very valuable investigations of Dr. James Ewing, who found that the antitoxin caused a diminution of the red blood corpuscles and extensive changes in the leucocytes, and he concludes that these changes are likely to lead to obstructions in the capillary circulation, to changes in the kidneys, to necrotic foci in the liver, to pneumonia areas in the lungs, to obstructions of the cerebral circulation and possibly to convulsions.

He doubts whether our short experience of only two years is sufficient to decide the value of the serum treatment in membranous croup, as the type of laryngeal diphtheria varies too much. In some epidemics almost every case of croup ends in recovery, while in others most of the cases terminate in death. A severe epidemic may teach us quite different from what we believe to-day. That the praise of antitoxin, as far as its use in croup is concerned, is not so unanimous as is claimed, we see from numerous reports. Vierordt, for instance, claims a mortality of 40 per cent. under the serum treatment.

"Beside, it is difficult to understand what effect the antitoxin should have in a case of diphtheria in which the general symptoms scarcely attract our attention and in which the localization of the membrane and the mechanical occlusion of the glottis are the only danger. And he does not understand why the antitoxin should be timely enough in croup, a diphtheria which perhaps existed four or five days or longer, while in other cases we require the antitoxin to be injected on the first or second day in order to be of benefit to the patient."

He calls attention to the report of Bertin (*Gazette Medicale de Nantes*, 1895, No. 4), who used plain horse serum in three cases of membranous croup, all recovering, which leads him to believe that antitoxin is not a specific. These cases were as follows: 1. Five-year-old girl. Diphtheria of

pharynx; membranous croup; swelling of the maxillary glands; Löffler bacillus found; 20 c.cm. of not immunized horse serum injected on the third day of the disease. Rapid improvement. On the sixth day all symptoms have disappeared. On the ninth day severe urticaria over the whole body, which heals gradually. 2. Nineteen-year-old girl. Diphtheria of pharynx; membranous croup; swelling of the maxillary glands; Löffler bacillus found. On the second day 20 c.cm. of not immunized horse serum injected. On the following day peeling off of large pieces of the membrane. Urticaria and alarming general symptoms. Complete recovery 22 days after the onset of the disease. 3. Four-year-old boy. Croup and symptoms of suffocation; Löffler bacillus found. In the evening of the second day 16 c.cm. of not immunized horse serum injected. Great improvement the following day. Complete recovery in the course of four days. Urticaria after another week.

The serum-therapy stands on the same footing as the drug treatment,

being only a matter of belief, and as long as a physician believes in the latter he can not be blamed for believing in the former. But those practitioners are to be blamed who in their enthusiasm go so far as to call other physicians criminal, because these do not follow their way of jumping at any new treatment which is presented. The day will come when this order of things will be reversed, and those using the serum treatment will be placed in the same light as those not using it to-day. And the adroitness with which those enthusiasts of to-day will extricate themselves from the affair will only be equaled by the facility with which they will take up the next fad that comes along. If there were a hundred diseases which could be treated on the principle of the serum-therapy, and in 99 this treatment would prove to be a failure, there would yet be physicians who would try it in the hundredth, although their experience in the other 99 diseases should have taught them that the system they followed was erroneous.

A SALUTARY REACTION.

If we may read the signs of the times correctly, we can come to no other conclusion than that the modern surgical operations have been carried far beyond their legitimate limits.

We gather that this impression was most positive and pronounced, and voiced in no uncertain language at the late Atlanta meeting of the American Medical Association by its venerable president and the illustrious Senn in his masterly address on general surgery.

This, indeed, is a most hopeful and salutary sign that the era of some of those awful mutilating operations so currently practiced in our time must be stopped or undertaken only by skilled hands and in extreme circumstances.

Let us for a moment analyze some of the causes which in the first place

gave such an impulse to such aggressive operative surgery, in order to find justification for the harrowing indictment.

The first and no doubt the most flagrant cause lies in over-specializing, too many free hospitals and dispensaries, too many special hospitals and private sanatoriums, an overproduction of physicians, the large fees for surgical operation and the barrenness of the soil in general practice. Deceptive and misleading statistics are not entirely blameless.

Misinterpretation and misapplication of science have been the most baneful of all. The antiseptic doctrine which time has proven a hollow fallacy lent an alarming stimulus to aggressive surgery. "No sepsis," proclaimed the young fledgling from the laboratory; "why tinker with your old-fogyism and antiquated drug

treatment while the knife clears morbid process from the roots?"

Skulls were ruthlessly opened, whole joints swept away, women desexualized and horrible gashes made where small punctures would have sufficed, but the unfortunate physical wrecks remaining bear testimony to the fact that those radical measures were impotent and their physical state continues more deplorable than ever.

Modern teachings on the management of malignant disease and too great reliance on the microscope have led both to excessive operating and cruel mutilations. Surgeons have formulated laws for the surgical treatment of a disease, the essence of which they remain in profound ignorance. In cancer — meaning thereby certain tissue proliferations attended with various morphological elements—they say: "Operate early and cut widely of the lesion," while, as yet, with the eminent Paget, many distinguished authorities place cancer in the category of constitutional maladies.

Besides, all know that in many types of epithelial proliferations progress is slow, and some way vanish or become innocuous if left alone

in not a few.

But "cut wide of the mark." In removing a knob of scirrhus of the breast, cleave away the whole side of the chest wall and so dig out the axillary cavity that in union the great vascular channels are closed and free shoulder action is forever lost.

But the most fearful onslaughts are made in the abdomen and pelvis. And now the whole reproductive system of a woman, the uterus, tubes and ovaries are swept away in order that an abscess may be drained through the vagina. Surgery must always occupy an advanced position as a palliative and remedial resource, through the aid of which alone life can be preserved or physical distress alleviated. But, it should not be resorted to until the resources of medical science and of nature have been exhausted.

A great mistake is commonly made in confounding the science with the art of surgery. The true surgeon is he who not only is a dextrous, accomplished operator, but whose province it is to learn how tissues and organs may be spared and the necessity for many operations obviated.

<p>COCAINE</p> <p>C.P. ANHYDROUS CRYSTALS.</p> <p>STANDARD OF PURITY</p> <p>THE WORLD OVER.</p>		<p>MURIATE</p> <p>BOEHRINGER-B&S.</p> <p>DISPENSED BY</p> <p>ALL DRUGGISTS</p>
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CLINICAL CASES REPORTED BY E. H. WOOLSEY, M. D.,

Chairman of Section on Physiology and Dietics of the American Medical Association.

Case 1. Locomotor ataxia. J. H., aged 42, locomotive engineer, admitted to hospital in 1884, with locomotor ataxia; could scarcely walk with eyes open and could neither stand nor sit steadily with eyes closed; no response of reflexes; total anaesthesia below the knees; mind occupied constantly with delusions regarding members of his family as embodiments of stranger spirits. At the end of three months' treatment, consisting chiefly of galvanism, he had some knee jerk, some sensation of legs and feet, and his mind, though occupied by some harmless spiritual delusions, was practically restored to usefulness and he was discharged for duty, but not to resume his former occupation. He, however, was considered well enough to return to his engine and did so, working for six months, when he was one day impelled by a spirit to run down a tramp on a trestle and killed him.

He was readmitted to hospital in about the same condition as on first entrance, though his mind was even more perturbed. He was treated again in the same way as before for two months, and was again discharged as able to work and as fully recovered as at time of previous discharge. Since then he has worked steadily as a machinist. I saw him a few weeks ago, and he has again lost the knee jerk; has lately suffered from numbness of the feet; his mind is slightly perturbed, and he has become somewhat deaf, but is still able to do good work. (1895.) In this case I used a mild, stable gal-

vanic current, one electrode at feet, the other—three inches wide by twelve inches long—over upper part of spine. Seance, ten minutes daily; direction of current chiefly upward, though reversed to downward direction once or twice during each treatment, yet always finishing with the ascending current.

Remarks. This is my usual treatment in cases of this class, modified more or less as to the number of reversals; frequently reversing about every two minutes, but usually finishing with current ascending. Also, occasionally modified by labile treatment of the spine and other parts of the back, pausing for an instant at tender and painful points, especially when the spinal electrode is positive. Occasionally the foregoing practice is modified by placing the upper electrode in the patient's hands. This, I believe, to be good practice, for in such cases the functions of the upper extremities, as well as of the lower, are frequently at fault, and stable electricity at hands and feet meets special indications here, besides causing such extensive diffusion of the current through the body as to meet most other indications, though the direct application over the spine, and particularly over the affected areas, may be of great utility. In making reversals of the current, the C. S. should be reduced before switching the pole changer and gradually increased again. In regard to C. S. my experience is in accord with the growing tendency of electricians to

use weaker currents. The terms, mild or weak, medium and strong, are only relative and differ in significance according to the individual view of different writers; one, for example, considering fifteen to twenty ma. as mild, and 100 ma. not over strong; another, ten ma., twenty ma. and 50 ma. as respectively mild, medium and strong; while others with whom I concur consider that the range of therapeutic currents should be placed very much lower. In spinal cases I commonly use five to ten ma., though ranging as low as three ma. and as high as thirty ma. No definite rule can be laid down for the treatment of this class of cases. However, it may be said in a general way and fairly applicable to all classes of cases, that the current which will usually be most useful is that which the patient can just barely feel. By this rule, however, the amperage will vary considerably in different cases, on account of individual peculiarities due to idiosyncrasy or disease. More voltage will be required if the circuit resistance is increased. If, for example, the patient's skin is dry, or the covering of the electrode is imperfectly moistened, or the conducting wires or terminals are rusty, the greater the resistance the greater the voltage required to produce the amperage desired for proper treatment. There has been some discussion as to the quality of surface electrodes, and I consider that the medical electrician should aim to secure as perfect conductivity as possible, but it must, nevertheless, appear that even if poor conductivity exist, yet so long as it permits of a steady flow of current and the voltage can be depended on to yield a current of sufficient strength to meet the requirements of a case, there may be no fault of treatment. Whatever resistance may be encountered a perfect milliamperemeter will show the current delivered, and I may here add that a perfect meter is indispensable.

Ten minutes has been given as the usual length of seance. It is necessary to consider the quantity of

electricity administered, and until we have a more practical means of measuring coulombs we must consider time as an essential factor. Experimentation on rabbits has convinced me that the length of seance has a most material influence, for I have observed under uniform conditions that the effect of electricity upon nutrition of internal organs is more pronounced when a current of ten ma. is given fifteen minutes than when it is given ten minutes; and that a current of five ma., given fifteen minutes, will produce effects similar to the effects of fifteen ma. given five minutes.

At the beginning of treatment daily seances are usually in order that obtained effects may be maintained, and even two short seances a day may, in some cases, be useful. But, generally speaking, after a patient has begun to show marked signs of improvement, which usually appear in from one to two weeks when the current is well adapted, then the course of treatment should be broken by giving only four or five seances a week, and as the case progresses treatment should be less and less frequent. One of the first signs of improvement in cases of chronic disease of the spinal cord, treated by electricity, is the rise of the patient's temperature. It may not be generally known that the temperature of such patients is almost invariably subnormal and frequently very low, but this, nevertheless, is a fact which I have determined by long experience, and have come to regard as of great diagnostic value.

This curative rise of subnormal temperature should not be confounded with the reactionary rise of temperature occurring in other classes of cases, or from protracted treatment; nor is there any conflict here with the fact that the immediate effect of electricity is to cause a temporary fall of temperature. In an analysis of the tabulated effects of electricity upon rabbits, presented to this section last year, I drew the conclusion that "in a downward current the ultimate positive influence is to cause anaemia, and in an upward current

the ultimate negative influence is to cause hyperemia," and I am still impressed with this view. From my earliest successful use of the constant current I have held the opinion that current direction and polar influence were the most important factors connected with its administration. The presumed effect upon the blood vessels by the influence of the positive pole upon the vaso-constrictors, and of the negative pole upon the vaso-dilators, always seemed to me an easy explanation of the phenomena observed in practice, and my further experience and experimentation strengthen this view.

Case 2. Tetanus.—In 1884, M. L., aged 40, a butcher, was admitted to hospital with tetanus, caused by a superficial scalp wound, which was foul, but which healed rapidly under antiseptic treatment. The opisthotonos was extreme, the trismus complete, and his efforts at respiration were distressing and accompanied by a shriek. The battery I used then was a stationary, gravity, fifty-cell battery, without a rheostat or meter. I applied a stabile descending current, the positive over the entire spine supported by a pillow, as his body was arched forward, and the negatives at the feet. The entire C. S. of the battery was employed. This current was maintained for six hours, without sensible improvement; was then suspended for an hour, and then reapplied and continued for the night, and on the following morning the patient was better, respiration less shallow and expiration less noisy. There was less trismus, but mouth could not be opened. The current was withdrawn, but after an hour the convulsions were violent. The current was again applied as before, and in less than an hour the symptoms abated slightly and the current was again stopped. In a few minutes severe spasm and rigid opisthotomos again returned, but the renewed application of the current caused some apparent relief in the course of half an hour. It now became evident that we had the case under some control, and the electrodes were left in place, except

as they were removed for moistening. When the symptoms were aggravated the current was turned on, and when they abated it was turned off. As yet, however, the patient could not move a muscle of his body.

On the third day, when, under the influence of the current, his mouth could be forcibly opened a little, and for the first time he swallowed a little water—teaspoonful at a time—but did this with great difficulty. But even now, when the current was withdrawn for an hour or so, spasms returned and instantly held him so rigidly that no external muscle could have been forcibly relaxed without rupture. Indeed, about this time the attempt of a new and heroic nurse to bend him resulted in breaking the foot of the bedstead. Gradually, the current acted more promptly, and had a more relaxing effect, and the recurrence of spasms became less frequent. In the course of a week the spasms yielded within a minute after turning on the current, and during intervals of repose the patient was fairly comfortable and could take liquid nourishment, but he was too sore to move, as the muscles, abdominal and thoracic, as well as those of the extremities, seemed to have been nearly torn from their attachments by the violence and persistence of the spasms.

About this time, on an occasion of recurrence of spasm, I administered the current experimentally, in an upward direction, but instead of controlling the spasm it increased its severity, and upon reversing the current to a downward direction the spasm was again abated. From this time on the current was gradually reduced, and the time of its administration diminished. At the end of three weeks' treatment the patient was discharged recovered, though his muscles were yet so sore and stiff from previous tension that upon rising from his bed or chair he could scarcely move for some minutes, and he could not turn his head.

The stiffness gradually disappeared; and he is alive and well. (1895.)

Remarks.—In this connection it may be of some interest to state that

when a current of extraordinary strength, 70 to 100 ma., is applied to a rabbit, in an ascending direction, the spine will be arched forward and the head and tail drawn up. When applied in the descending direction, the spine will be arched backward and the head drawn somewhat downward and close to the trunk, and the tail drawn downward and forward.

These opposite distortions will follow each reversal of the current, no matter how frequently this may be done, and furthermore, the rabbits thus severely shocked by such reversals of a heavy current are likely to die in the course of a few hours with convulsions of a tetanoid character.

Locomotor ataxia from diphtheria. In 1886 I treated the six-year-old son of S. G. for locomotor ataxia resulting from a protracted severe attack of diphtheria. He could not walk, even with his eyes open without falling, and had returned to creeping. The reflexes at soles and knees were entirely abolished, and he had aphomia. I called in consultation the ablest neurologist on the Pacific coast, who agreed with me as to the probable utility of electricity, but he advised the faradic current to be applied to the neck and the galvanic current to the spine, and expressed the opinion that direction of the current was immaterial. The patient's temperature was 96.5. I commenced treatment as suggested, giving daily seances. Applied the faradic current to the neck, about as strong as the patient could bear for five minutes, and with electrodes at the feet and spine, gave a stabile downward galvanic current of 10 ma. for ten minutes. This was continued for a week, when the patient had not only not improved, but was rather worse in every respect. I then discontinued the faradic current and applied the galvanic in an upward direction, but in other respects precisely as before—same C. S., duration of seance, etc. At the end of the second week there was some improvement. The voice had increased from a low to a husky whisper and patient could stand a little longer

on his feet. His temperature had risen to 97.3—nearly a degree—but there was not the slightest response of reflex tendons. This treatment, ascending current, was continued though the strength of current was lowered to six ma., and length of seance reduced to eight minutes. At the end of the fourth week the patient was nearly well, though the knee jerk was still only just perceptible. The temperature had become normal; the voice had returned, though it was yet somewhat weak, and he could walk about for a half hour without assistance. Treatment was continued, though only three times a week, for another month when patient had recovered in every respect. He is now alive and well. (1895.)

Locomotor Ataxia from Tobacco. —In 1886, J. F., aged 38, a laborer, was admitted to hospital on account of locomotor ataxia. He could not stand or even sit erect with his eyes closed and staggered like one intoxicated when walking with eyes open.

Patellar reflexes absent and no response at soles; skin generally more or less anesthetic. Did not feel ordinary pin pricking even at arms, neck or face, nor deep pin pricking at lower extremities.

Mind not impaired, but speech sluggish. Cause of ataxia seemed to be from excessive use of tobacco.

Gave stable current of 20 ma. to foot and spine electrodes, ten minutes daily, and for first three days used a descending current, experimentally. It aggravated the symptoms. I then administered the same current in an ascending direction and the patient at once—during and immediately after the seance—expressed himself as feeling better and his voice was stronger and he looked brighter. This treatment was persisted in daily, except Sundays, and there was daily improvement. Sensation and activity of reflexes gradually returned and the ataxia gradually disappeared. He was discharged fully recovered at the end of three weeks' treatment and has since remained well (1895).

Spinal Meningitis, from Concussion.—In 1886, J. L., aged 30, a brakeman, was admitted to hospital on account of concussion of spine from railway collision. After five weeks general treatment the acute distressing symptoms passed off, but left an apparent congestion at the upper dorsal spine, where upon pressure there was tenderness and pain, and after exercise severe intercostal pains.

A current of three to ten ma. was applied, positive electrode moved over tender part of spine and negative fixed at the buttocks.

During the seance of ten minutes, finding that he could not at once endure 10 ma., a weak current was given, and after a minute or so he could tolerate it a little stronger and before the close of the seance he could stand 10 ma., providing the electrode over the spine was kept in motion.

This treatment was repeated daily for six days, when the sensitiveness on pressure and the exaggerated electro-sensibility had greatly diminished. Then, however, the house physician gave the current accidentally in an upward direction, with the effect of waking up morbid sensibility of the spine and rendering the patient more nervous and irritable, and that night he was unusually restless. On the following day the regular treatment (descending current) was used, causing immediate relief of tenderness and nervousness, and the patient slept for an hour immediately after the seance. This treatment was continued daily except Sundays for two weeks longer, when the patient was discharged.

He worked as ticket collector for three years without interruption, though suffering at times for a few hours and occasionally at night from pain at upper part of his back. He was assigned to duty as brakeman and after a few days of such work was again admitted to hospital in 1890, with acute spinal meningitis. The dyspnea on account of intercostal neuralgia, etc., was distressing, cyanosis was marked, and he complained of pain at the back, neck and head, and also at the extremities.

He was kept constantly under the influence of morphia. His wife and brother-in-law, who was a physician, and also on the hospital staff, expected his death daily. This was the condition in which I found him four weeks after his admission.

I at once applied a stabile downward current without disturbing him much in bed; positive electrode about one foot long and three inches wide, over the most sensitive part of the spine (upper dorsal and lower cervical) with the negative at the feet. I began with five ma. and increased to 12 ma. during a seance of ten minutes, and the relief was almost instantaneous. Before the seance was over the patient was asleep.

This treatment was given twice daily for several days, and each time with the effect of causing sleep before the seance ended. The patient gradually improved, and the number of seances was diminished, but the rather strong current was kept up as the patient always asked to have it stronger, and on some occasions through the offices of an indiscreet fellow patient he got as high as 40 ma., yet with apparently good effect.

But after about two weeks treatment he began to complain of pain in the left leg and of abnormal sensations at the foot and of a drawing feeling at the toe.

He had now so far recovered that all anodynes had been withdrawn; he was able to sit up in bed; soreness and pain at back and neck had largely abated and appetite had returned. I continued the treatment daily, except using a weaker current (8 to 10 ma.) for a month longer, always with immediate agreeable effects, and the spinal tenderness had entirely disappeared. There was but one complaint, that of pains at left leg and foot. He could walk about town and felt himself improving from day to day, but his face began to be a little edematous. The treatment was continued and there was no indication of return of spinal irritation.

But each day there was some new phase of edema, and soon it became quite general and very pronounced, the skin being distended to its ut-

most, and though the patient could yet walk when raised up, he could not rise from bed unassisted. The heart and urine were examined, but no evidence of organic lesion was discovered. I now suspected that the current had caused it, and putting my theory to a further test, gave an ascending current of the same strength—stable, with positive at feet and negative at lower part of back, keeping far below the site of original irritation. On some days of treatment a transitory irritating effect was occasioned in the meninges of the upper dorsal portion of the

cord, but this was always promptly controlled by the temporary application here of the positive pole. After the first day's treatment with the ascending current the edema began to subside and during a ten days' course of such treatment entirely disappeared and with it the numbness of left leg, and the patient was discharged recovered. He went to work as flagman and continued at such work for several months, but then caught cold and died suddenly of pneumonia.

—Journal of Am. Med. Assn.

(Continued in Next Issue.)

Correspondence.

FAKIRS AND TESTIMONIALS.

To the Editor of Medical Times and Register.—When a physician is called to a patient whom he finds in such an anti-medical mood as our friend J. Foster Flagg, D.D. S., while elaborating his able article on "Rheumatic Rings," then a proficient acquaintance with human nature is alike of service to physician and patient.

We have all read in the eyes of the hysteric the hypochondriac and the choleric patient these thoughts: "Doctor, I will prove to you that I suffer; I will show you that in my disease you have met your match. I will suffer just for spite rather than have it known that you comprehend me or my illness." And the fervor of these thoughts charge the feelings to the spasm point and moan after moan is ejaculated for the benefit of the lookers-on.

The patient is resolved—secretly resolved—to give the doctor no

chance; he takes the medicine, but his will is set against it. On every painful point his mind gloats, and if one deception is proved malice deepens and soon new phenomena are designed.

Finally, along comes a quack, a crone, a silly creature of one idea, a being that is morally and intellectually the opposite of a true physician.

Some nonsense is enacted, no matter what—the patient resolves to be well or would be much pleased to get well, and observes the doctor's chagrin; he furnishes a testimonial to the fakir—fraud or fool—praising his nonsense, notion or nostrum, then poses in print and picture for suffering humanity's sake.

There are plenty of these creatures everywhere; their mood is that of a bucking mule towards its rider, and every physician for his own sake and for that of the profession should learn their tricks that he may help them and protect himself.

C. E. Boynton, M. D., Buena Vista, Ore.

Current Medical Literature.

THE TREATMENT OF SCIATICA.

Sciatica frequently occurs in persons of rheumatic tendency and this explains in a great measure the efficiency of anti-rheumatic remedies in many of these cases. According to numerous reports salophen is especially serviceable in the treatment of this painful affection. Dr. Luigi Cappelari (*Riform. Med.* No. 53, 1895), after observing the excellent effects of this remedy in rheumatic trouble, decided to test its value in sciatica, excluding the traumatic form, in which success appeared a priori very doubtful. In four cases of this affection, which he reports in detail, the results from the use of salophen were excellent. The first patient was a man aged 70 years old, who suffered from a sciatica on the right side, which had been present for four weeks and had resisted all the customary remedies. Salophen 4.0 gm. daily was administered for four days. The pains then completely disappeared, and the remedy was discontinued, but as they recurred in a few days, with increased severity, salophen in the same dose was again resorted to for six days. Under this treatment the sciatica was radically cured and a similar result was obtained in the second case from six days' administration of the remedy. In the third case a cure was effected after the employment of 86.0 gm. salophen during eight days. In the fourth observation the sciatica occurred as a sequel to a sure typhoid and subsided completely at the end of five days, during which 3.0 gm. salophen were daily given. The effect in all these cases left nothing to be desired. After-effects were either absent or of a character, consisting in vertigo, aphoresis and slight drowsiness. Disturbances of the digestion or circulation were never noted, al-

though the sciatica in the author's cases was of more or less recent origin. Although the utility of the remedy in the chronic forms has not been tested by him his observations are highly encouraging, since they show that salophen is of great service in a disease so often rebellious to all the customary anti-neuralgics.

XEROFORM.

A NEW ANTISEPTIC IN POWDER FORM.

—From the *Therapeutische Monatshefte*.

In conjunction with Dr. Hesse, of Dresden, some bacteriological investigations were undertaken as regards the comparative disinfectant power of iodoform and xeroform.

I excerpt the following from the communication that Dr. Hesse has been kind enough to place at my disposal; he will himself in a future communication recount his results at length.

After various preliminary trials the following experiment was performed on November 21, 1895:

Nineteen Agar-Agar plates (Petri's) were taken and exposed for half an hour to the ordinary atmosphere of the laboratory. They were then treated as follows:

a. Five were strewn with iodoform, in different amounts.

No. 1 with a thin layer.

No. 2 with a somewhat thicker layer.

No. 3 with a still thicker layer.

No. 4 half covered with a thick layer, while the other half remained exposed.

No. 5 each quarter with a thin, thicker and very thick layer, while the fourth remained uncovered.

b. Five other plates were treated in a similar way with xeroform.

c. Four plates were untreated, for control purposes.

The results were as follows:

1. On the four control plates (c) there developed up to November 23 some 40 to 60 colonies. Some of them showed a tendency to spread so rapidly on the surface of the Agar-Agar that after that date the colonies could no longer be counted.

2. On the iodoform plates the colonies developed somewhat more slowly, but in about the same number as in the control plates; they were also fairly evenly distributed, so that the thickness of the iodoform layer seemed to have no special effect.

On the xeroform plates there were the less colonies the thick layer of the less colonies the thicker the layer of the powder. On the sparsely strewn colonies, some 40, as on the control plates; on those more thickly covered there were 10, while on those most thickly strewn there were only 4. The same differences were plainly observed in the partially covered plates.

Thus it was shown that iodoform interfered with their growth but very little, though the colonies increasing slowly, and showing but little tendency to spread superficially; while xeroform hindered their growth, and in thick layers seemed to stop it entirely.

Similar results were obtained from experiments made at the Hygienic Institute of this city.

Gelatine tubes were inoculated with from 1 to 3 loops of fresh cultures of 1. *Bacillus prodigiosus*, 2. *Staphylococcus aureus*, 3. *Bacterium coli*, and poured out into Petri vessels. After setting they were evenly strewn with (a) iodoform, (b) xeroform, while some were left unstrewn for purposes of control. Repeated series of these experiments always showed that under xeroform the solution and color production of prodigiosus was decidedly impeded; that with the staphylococcus no difference was to be seen; that with the bacterium coli the xeroform cultures grew more sparsely than they did with iodoform or in the control vessels.

The mode of application of xeroform is the same as that of iodoform. After thorough cleansing and disinfection of the surface, possibly with sublimate, the powder is dusted on lightly with a camels-hair brush or an insufflator, and a bandage applied. The excessive fineness of the xeroform powder facilitates this process. The xeroform gauze that has lately been supplied seems to be very good. This latter possesses the additional advantage that it may be sterilized again after the gauze has been prepared, since xeroform can be heated up to 110 degrees C. (225 degrees F.) without undergoing decomposition. I used the drug also in 10 to 20 per cent. paste or salve in suitable cases, but its disinfectant power seemed to suffer when in combination with fats. I therefore preferred to use 10 to 20 degrees emulsions.

I can summarize the advantages of xeroform as follows:

- 1 Xeroform is non-poisonous.
2. Xeroform is almost odorless and tasteless.
3. Xeroform is entirely non-irritating, even to inflamed mucosae.
4. Xeroform unites the action of the phenols, and more especially of tribromphenol with that of bismuth; it is powerfully anti-bacterial and anti-fermentative, and is not only an excellent intestinal antiseptic, but also a very powerful antiseptic for wounds.
5. In wounds xeroform promotes epithelial growth, and also lessens the pain.
6. Xeroform does not change under the influence of light; and, since it is not decomposed by a temperature of 120 degrees C. (255 degrees F.) it can be readily sterilized.
7. Xeroform has double the volume of an equal weight of iodoform. Only half the quantity of the latter is required to cover a wounded surface.

I believe that I can maintain that we have in xeroform a disinfectant that is worthy to be placed by the side of iodoform; while possessing other important advantages over it; and that at all—

EXPERIMENTS IN THE CONTAGIOUSNESS OF PULMONARY PHTHISIS.

It has been asserted that persons sent to resorts for their general health acquire there the germs of tuberculosis. Some recent experiments described in the *Revue de la Tuberculose*, December, 1895, prove that where the sputa of consumptives, even in advanced stages, is carefully collected and destroyed, there is no contagion. Apartments where deaths from purulent phthisis had occurred were disinfected and animals inoculated with the dust collected from the walls, etc., afterward. Results showed that cleanliness and disinfection are enough to prevent any contagion from inhalation of the dust. Further experiments with animals proved that the most infective forms of phthisis did not communicate contagion where the patients constantly used portable cuspidors in which there was a layer of Van Swieten's solution. There is therefore less danger of contagion at a sanitarium or consumptive resort, where strict measures prevail, than in the every day life of any large town.

—*Jour. A. M. A.*

APYREXIAL TYPHOID FEVER.

Svehla (*Rev. des Mal. de l'Enf.*, May, 1896) reports a case of typhoid fever without pyrexia, in which the diagnosis was confined by the discovery of the bacillus of Eberth in the blood and urine. The patient was a boy, aged 6; his two brothers, aged respectively 10 and 4, were attacked with typhoid fever a few days after his illness began. The patient had been ill for a fortnight (vomiting and diarrhea) before admission to hospital. He was drowsy and emaciated, and the extremities were cyanotic and cold. The tongue was dry and coated. The motions were liquid, brown and offensive. The spleen was not enlarged; the urine gave the diazo-reaction, and the reaction persisted for a week longer. The patient then improved, and left the hospital, but subsequently had a

relapse. The temperature never exceeded 99.2 while in hospital. Svehla states the cultivations of the bacillus of Eberth in broth give the diazo-reaction, whereas those of bacterium coli commune do not.

—*B. M. J.*

TUBERCULOUS MENINGITIS ENDING IN RECOVERY.

Janssen (*Deut. med. Woch.*, March 12, 1896) refers to the rarity of recovery in this disease. In a few cases the diagnosis has been established by finding evidence of a past tuberculous meningitis, the patient having died of some other cause. In Freyhan's case of recovery tubercle bacilli were found in the fluid drawn off by spinal puncture. The author then records the following case. A man aged 19 was admitted in May, 1892, with headache, stupor, vomiting, and constipation. The temperature was raised, and at one time the pulse only numbered 42 per minute. Later there was ocular paralysis and retraction of the head. Some fourteen days after admission the patient began to improve, and he was discharged well a month afterwards. Three years later he was again admitted into hospital with early phthisis. The disease ran a rapid course, and he died four months later. At the necropsy a yellow mass, composed of minute tubercles, and measuring 4 centimetres long and 2 centimetres wide, was found running along each side of the longitudinal fissure. The pia mater was of a milk-white color in several places over the convexity of the brain; there minute tubercles were also seen. The first-named tubercles consisted of detritus, fat, and a few cells, but no fibrous tissue; and the last-named of fibrous tissue and a few cells. In no instance were tubercle bacilli found. At the base of the brain the same white spots containing tubercles were seen about the chiasma and Sylvian fissures. In these white areas the pia mater and arachnoid were adherent to the underlying brain tissue. As regards the treatment of this attack of tuberculous meningitis, the head was shaved, and iodide of potassium was

given in large doses; eight grains were at first administered in the day, but this quantity was rapidly increased. The patient took as much as 950 grains during the illness. There was a slight coryza, but no other unpleasant symptom. All the secretions and excretions gave a marked iodine reaction. The author thinks that the iodide had undoubtedly a favorable effect on the disease. This treatment is not new, but these large doses of iodide have not within the author's knowledge been used before.

—B. M. J.

JAUNDICE.

In a discussion on Renvers' paper on chronic jaundice before the Berlin Verein f. inn. Med (Centralbl. f. inn. Med., April 4, 1896), A. Fraenkel expressed a doubt whether all cases of jaundice not of infective origin could be classed as toxic, and he thought that obstruction of the bile channels must account for some cases. Gall stones could produce purulent as well as catarrhal inflammation in the gall bladder, and could thus give rise to jaundice without there necessarily being an obstruction of the choledochus. Meyer thought that Renvers' method of distinguishing tumor from stones was not always reliable. In support of the toxic origin of jaundice, Freyhan cited the jaundice sometimes seen in lead poisoning. Stadelmann thought that the jaundice accompanying cirrhosis was not always due to catarrh of the bile ducts. He thought that sometimes jaundice might be of a reflex character, and he pointed to the presence of muscle fibres in the small bile channels. Ewald said that the examination of the stomach contents provided an important distinction between gastralgia and gall stones. In gastralgia there was frequently hyperacidity, but not so in gall stones. He looked upon the occurrence of gall stones without jaundice as frequent. Leyden could not altogether give up the idea of hematogenous jaundice. Lewin thought that the jaundice occurring in secondary syphilis was not due to intoxication, but to a mechan-

ical cause in the shape of a swelling of the periportal glands. There is such a thing as nervous jaundice, but the diagnosis of such a condition must be cautious. Renvers, in conclusion, said that the discussion had shown the correctness of his view that jaundice only arose in the liver itself. In regard to catarrhal jaundice, he did not doubt the existence of other causes besides infection and intoxication, but he endeavored thus to divide up jaundice from a clinical standpoint. Febrile jaundice was always due to infection. He had seen jaundice of long standing clear up with the escape of stones. Here he thought the jaundice was really due to catarrhal changes in the ducts rather than in obstruction. According to his experience, there was no jaundice in one-third the cases of gall stones.

—B. M. J.

THE TREATMENT OF HALLUX VALGUS.

Delvet (Rev. de Chir., April, 1896) reported at a recent meeting of the Societe de Chirurgie, of Paris, a case of double hallux valgus in a woman aged 33, in which, after removal on both sides of the inflamed serous sac, he resected with gouge and mallet the abnormal projection of the head of the metatarsal bone, and finally fixed the contracted tendon of the extensor hallucis to the inner side of the toe by an artificial sheath of fibrous tissue and periosteum taken from the metatarsal bone. The double deformity, it is stated, has thus been corrected, and the patient is now able to walk without any trouble or difficulty. In some remarks on this case Kirmisson pointed out that complete resection of the head of the first metatarsal bone has the disadvantage of impairing the internal arch of the foot, whilst resection limited to the proximal end of the first phalanx is an illogical procedure, as in hallux valgus the lesions affect exclusively the metatarsal bone. Simple section of the extensor tendon will not suffice, as contraction of this tendon is an absolutely secondary condition, and not the immediate cause of the deformity.

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

CASE OF ACUTE INTUSSUSCEPTION IN AN INFANT REDUCED BY INFLATION WITH WARM WATER—RECOVERY.

By Charles H. Miles, L. R. C. P. Lond.,
etc.

In London Medical Times.

The above case occurred in my practice a few weeks back. The little patient was a girl of six months. These cases are not uncommon in general practice, and this case in particular illustrates a most serious condition, which may be met with at any moment.

The history is as follows:

The mother stated that on the evening of the 21st of February the child was taken suddenly ill with screaming fits. Nothing could pacify it. Soon after, it commenced to vomit. Could not keep the milk down. She applied warm flannels to the abdomen, which seemed to ease it somewhat, but vomiting continued. In removing the diapers she noticed they contained blood and slime. On the 22d I saw the little patient; she showed signs of collapse, thready pulse, and cold, clammy surface of the body.

The abdomen was soft and flaccid, and on careful examination a rounded, elongated tumor could be felt, occupying the left umbilical region. The tumor was sausage-shaped, soft and doughy, which appeared to become tense on examination. The child vomited even a teaspoonful of cold water, which was given to it. Every diaper removed contained mucus and blood.

The diagnosis being certain, the mother was ordered to bring the child up to the surgery as early as

possible; in the meantime a warm bath, with hot fomentations to the abdomen, were ordered.

All instruments and dressing were got ready for the operation of laparotomy, in case inflation failed to reduce the invagination.

Chloroform was administered, and warm water was injected into the rectum by means of an ordinary Higginson's syringe; at the same time the tumor was grasped, and gently manipulated. After a time the swelling entirely disappeared, and careful examination, both by Dr. Smyth and myself, failed to detect any tumor or abnormality whatever, and the intussusception then had been successfully reduced.

The child was taken home, and hot, moist applications containing opium and belladonna were kept constantly applied to the abdomen; nothing to be given by the mouth except the following mixture:

R Tinct. Camph. Codrops xv.
Tinct. Belladonnae.....drops v.
Aqua Chlordr. 1
Every two hours.

The child made an uninterrupted recovery, and is now quite well.

Now let us consider the cause of this condition. Most authorities agree that it is due to increased peristaltic action, the exact nervous mechanism of which we know nothing. Probably it is automatic. We do know that this peristaltic action is increased by the presence of food, bile, or by irritation of the vagus. Therefore, irritation from worms, indigestible particles of food, and catarrhal inflammation of the bowel may predispose to it; also reflex irritation from teething, or fright, may assist in its production. Now, what are the chief symptoms?

The patients are usually under 10 years of age, with no previous history of any affection whatever. The onset is sudden; pain appears first, then vomiting, afterwards diarrhea and looseness, with bloody discharge from the anus, marked prostration, flaccid abdomen, and, in the majority of cases the characteristic tumor can be felt. This tumor changes its shape, and increases in size and density during the pain.

In considering the treatment it is only rational to conclude that the sooner the case is treated the more favorable the result will be.

The first thing to do then is to stop the invagination going any further. Therefore we give opium, or some preparation of opium, which checks peristaltic action, relieves the pain, and wards off collapse; at the same time we apply hot, moist applications to the abdomen, or give a warm bath.

The next thing to do is to restore the invaginated portion of bowel back again into its normal position. The sooner this is done the better. The invagination may be successfully reduced, as it was in this case, by administering an anesthetic, and injecting a large quantity of warm water, at the same time carefully kneading the tumor through the abdominal walls. If this fails, as it sometimes does, then laparotomy must be resorted to. The operation is not difficult, but aseptic precautions must be taken. The incision is in the middle line, beginning an inch below the umbilicus; on reaching the peritoneum, carefully scratch through sufficiently to admit the finger, then a probe-pointed bistoury will slit up the rest.

The bowels must be kept back by warm carbolized sponges, and the tumor sought for; if this is found empty, the intussusception is on the small intestine, therefore the coils of intestine are traced upwards until the invagination is reached, and then the condition can be rectified. After this has been done, the bowel is replaced, the soiled peritoneum cleansed with aseptic sponges, and the wound closed.

TREATMENT OF VESICO-VAGINAL FISTULA BY INTRA-VESICAL SUTURE.

The author says that the supra-vesical route for the treatment of above type of fistula was first adopted in 1889 by Trendelenburg. His first case ended in failure, but his second was successful. Since that time many surgeons have resorted to it, mostly Germans—Weinlechner, Leopold, Max Gill and Pousson.

M. Duplay recently reports a case so treated with the assistance of Clado. The patient was a young woman of 31 years, who lost her uterus by the vaginal route from a pelvic abscess.

The bladder floor was torn, a fistula two centimetres long being left. This was so high up as to involve the peritoneal cavity, and in the operation for its closure by this route the omentum and intestine came down.

The operation was a failure, when later it was decided to make an attempt from above, through the bladder. The supra-pubic incision was made, the bladder opened and the edges of the fistula pared. Two several interrupted catgut sutures were introduced from within, which included the mucous and muscular coat, then another outer deep row of strong silk was inserted through the vagina.

A small drain was left out above. The union was prompt and solid throughout, although some slight tenesmus remained.

—*Revue de Chirurgie*, 1st April, '96.

Note by Translator—The author of above is in error about the date of the first operation for vesico-vaginal fistula by the vesical route. It is, however, an operation extremely difficult of performance in those of a deep pelvis; often leaves vesical tenesmus, and, besides, a wide breach in the abdominal wall, which favors ventral hernia. Rectal and vesical fistula are common sequelae of vaginal hysterectomy.

SPONTANEOUS CURE OF A MALIGNANT TUMOR OF THE BLADDER.

Schuchart, surgeon to the Stettin Hospital, has lately reported a cure of malignant disease of the bladder, undergoing retrogressive changes and incomplete resorption, after a simple incision into the bladder.

The patient was a cachectic individual, 57 years old, with arterio-sclerosis. He had a tumor of the bladder as large as the egg of an ostrich. On making a supra-pubic cystotomy the bladder was found transformed into a vast neoplastic mass, quite inoperable. The pelvic tissues were infiltrated. Finding that it could not be enucleated the wound was partly closed and a drain inserted. On the second day free pus began to discharge through the opening. This was followed later by masses of stringy material, until after a month the entire tumor had come away and cure was complete.

—Deutsch Med. Woch. 9, 1896.

MERORRHAGIA IN OLD WOMEN.

In 1896 Dr. Monod called attention to a type of uterine hemorrhage in old women. He cited several cases, among which was one 12 years past the menopause. Two were over 60 years old. They had been seized with the copious and prolonged uterine bleeding. The general condition of these women was excellent; no appreciable local lesion was present, neither epithelioma of the neck nor cancer of body, or other intra-uterine growth.

Monod subjected these women to the use of ergot, with local injections of hot water. This cured them all. Uterine hemorrhage is symptomatic, generally of malignant growth, edematous and fibroids; although, sometimes it is impossible to assign a cause. Bowlet and Trusseau have made a special study of the latter. Free bleeding in chronic endometritis is common in young women. The

womb is enlarged, fixed and painful, and gives issue to a sanguino-purulent discharge. Martin, of Berlin, has observed abundant exterior hemorrhage in tuberculous women without any appreciable lesion of the uterus. He had seen the same in cases of interstitial nephritis and diseases of the heart. Dancel had noted it in the polysarcie. It has been particularly noticed in very corpulent women. Herman and Tourneux have studied the morbid anatomy of this lesion condition. They noted characteristic changes in the uterine tissue. The muscle elements became soft and pliable; the vessels in the mucosum are dilated and brittle; the arteries became rigid and atheromatous. Delbet noted the constant disappearance of the glands in the mucosum and subjacent tissues, they being substituted by a fibrous or fatty tissue. This alteration predisposes in some aged women to excessive uterine hemorrhage.

Treatment—In most of these cases rest in bed, dilatation of the cervix, curettage and warm boric-acid irrigation suffices.

But in obstinate cases potent astringents are useful. Electricity often serves a most useful part in stimulating the lax muscle and imparting tenacity to the vascular elements.

—Gazette de Gynecology, 1st April, '96.

Note by Translator—The above contribution is valuable and timely in pointing to the many types of uterine hemorrhage, which are not of a malignant origin, in middle-aged and elderly women. At this stage of life in the uterus there is a reversion of the anatomical elements, and the fungoid vegetation which often stuffs the uterine cavity on microscopical examination will be found to present many of the features of sarcomatous or lymphoid tissue and lead the unwary into suspecting the existence of such a condition as would warrant a hysterectomy, while under intelligently directed simple treatment cure speedily follows. T. H. M.

Current Literature in Obstetrics and Gynecology.

E. D. KINNEY, M. D., Boston, Editor.

THE LEMON AS A PESSARY.

At a recent meeting of the Lyons Society of the Medical Sciences, as we learn from *Lyon medical* for March 29, a hospital interne, M. Berard, showed a lemon, one of a number which a woman 68 years old had carried in her vagina by turn for 22 years, on account of prolapse of the uterus with cystocele and proctocele. This particular lemon was medium-sized and had been worn for about six weeks. Ordinarily, according to the woman's story, she had been able to remove her lemon easily, and had done so about once a month, but on this occasion she had asked to have it removed. It was extracted with much difficulty by means of a Museux's forceps and, to the patient's unconcealed displeasure, replaced with an appliance more familiar in gynecological practice. The lemon seemed to be unchanged; it gave out no unpleasant odor and presented no trace of putrefaction.

The uterine prolapse had come on after the menopause, but its primary cause had been, according to M. Berard, a rupture of the perineum incurred in the course of one of the woman's five confinements and left unrepaired. She had at first worn a Dumontpallier pessary, but it had proved uncomfortable, and, acting on the advice of another woman, she had substituted the lemon for it. She declared that a lemon had always answered the purpose; that it was easy of introduction, that it readily kept its place, and that she could remove it without much trouble. In one instance, however, she had been obliged to wear one lemon for a year continuously, because it was too large for her to remove, but at the end of that time it had escaped of itself, sodden, to be sure, but without having given rise to any eschar or any infection, whether of the vaginal wall or of the cervix uteri.

At the examination, the mucous membrane of the vagina and the cervix had been found rosy, sound, and free from excoriation, so that it might be questioned if this pessary

had not been really antiseptic, and if it had not some advantages in cases of prolapse coming on after the menopause, when there was no longer any need of taking the menstrual flow into consideration. It was questionable, too. M. Berard thought, if much more costly pessaries would have been so well borne for so long a period by a woman who paid no attention to hygiene and had to work all the time.

The use of the lemon within the genital canal is not wholly novel; even the apple has been used as a pessary, as in an instance that M. Berard cites from a *Treatise on Hernia*, by A. Verdier, published in 1840. So protracted an employment of lemons for a mechanical purpose, however, must have been rare, if, indeed, it has ever occurred at all; a fortiori may this be said of so prolonged a sojourn of a single lemon in the vagina as that of which M. Berard spoke.

—New York Med. Journal.

POST-PARTUM HEMORRHAGE.

Tarnier's treatment of postpartum hemorrhages, described at the Congress of the Obstetrical Society of France, last month, is merely a tampon, if the hemorrhage proceeds from the neck of the womb, the vagina or the vulva. The important point is to locate the source. If it proceeds from the body of the uterus, it is a serious matter then, and he applies heat in the form of hot water, but first he clears out of the uterus every trace of clot, in spite of all protests, sometimes having to clear it two or three times. If there is the slightest fragment of a clot left, the uterus is liable not to contract. Tarnier advises the use of hot water as a preventive measure when there is a known individual or family tendency to hemorrhages or uterine inertia. He has never lost a patient from a postpartum hemorrhage, and he gives no drugs except in very rare cases he follows the hot water with a hypodermic injection of ergotin.

—Progres Medical, April 18.



Miscellany.

Dr. Edward J. Forster, of Boston, died suddenly on the steamer Puritan, in New York, on May 15. He had been in Philadelphia attending the meeting of the Association of Military Surgeons, and had just boarded the steamer on his way home. His death was due to apoplexy. Dr. Forster was born 50 years ago, at Charlestown, and was graduated from the Harvard Medical School, afterward completing his studies abroad. He was the treasurer of the Massachusetts Medical Society, first vice president of the Society of Military Surgeons, and for many years visiting physician of the Boston City Hospital.

(Dr. Thomas H. Manley, of our staff, who was surgeon of the Ninth Massachusetts Volunteers, while Dr. Forster was surgeon of the Fifth Col. Trull's Regiment, begs to be permitted to bear testimony to the zeal and sterling worth of his late military colleague.—Ed.)

A CLERGYMAN'S GOOD WORD FOR THE MEDICAL PROFESSION.

The Rev. Dr. Talmage says, "Bless the doctors," and contends that there is too much fault-finding among the general public with physicians, especially when the patient fails to recover.

So far as I know them, physicians profess to be neither omnipotent nor all-wise. Like those of us in other professions and occupations, I suppose they sometimes make mistakes; but the time we spend in sarcastic flings at their Christ-like and magnificent calling we had better spend in thanksgiving to God for what they accomplish. Better not be too hard on the doctors. Sooner than you expect you will be sending for them, and between you and the King of

Terrors there will be nothing but one of their prescriptions. They stand to-day, as a profession, fighting back whole armies of cancers, pneumonias, diphtherias, and congestions of brain and liver and lung. They do more missionary work than any class of men in the country, and upon them will come the blessing of the Great Physician, as he says, "I was sick, and ye visited me." When the last ailment of body is cured, and the last attack on the children's cradle has been discomfited, and the last broken bone of workman fallen from the house scaffolding shall be set, and the last swollen gum of teething child shall have been lanced, and the last pale patient with tumor successfully removed shall, with a grateful "Thank you, doctor," be released from the operating table in the clinical department of the city hospital, then it will be time enough to deride the medical profession. Christ took along with him in his journeying a physician, one Doctor Luke, and while some in that calling are skeptical and atheistic, many of them know how at the same time to medicate body and soul.

—JOUR. A. M. A.

"GLYCOZONE."

Our friends, the Drevet Manufacturing Company, have recently won a suit against A. P. Beach for the infringement on their name "Glycozone," as will be seen.

The United States of America,
Northern District of Ohio, Eastern
Division, ss.

At a stated term of the Circuit Court of the United States, within and for the Eastern Division of the Northern District of Ohio, begun and held at the city of Cleveland, in said district, on the first Tuesday in February, being the 4th day of said month, in the year of our Lord, one

thousand eight hundred and ninety-six, and the independence of the United States of America, one hundred and twentieth, to wit: On Tuesday, the 25th day of February, A. D. 1896.

Present, the Honorable Augustus J. Ricks, U. S. District Judge.

Among the proceedings then and there had were the following, to wit: The Drevet Manufacturing Company vs. A. P. Beach. In Equity No. 5494.

This cause came on to be heard, this 25th day of February, A. D. 1896, on motion of the complainant for an order to defendant to show cause why an injunction pendente lite should not issue against him as prayed for in complainant's bill, and on reading said order herein, and proof of service thereof on defendant, and the bill of complainant's, and the affidavits on behalf of complainant's filed therewith, and counsel for complainant having been heard (defendant not being present or represented), the same having been duly considered by the Court, and it appearing that complainant has adopted the trade-mark as set forth in their bill, and caused same to be registered as appears by the certified copy of the certificate of such registration, to wit: Certificate No. 18,236 also introduced in evidence by the complainant, and it further appearing that said defendant has infringed on the rights secured by said complainant, as set forth in its bill. Now, therefore, it is hereby ordered, adjudged and decreed that a preliminary injunction be issued pursuant to the prayer of the complainant's bill, strictly commanding and enjoining the said defendant, A. P. Beach, his clerks, agents or workmen, under the pains and penalties which may fall upon them, and each of them, in case of disobedience, that they forthwith, and until the further order, judgment and decree of this Court, desist from making and selling a liquid preparation put up in bottles with labels applied thereto, bearing the name of "Glycozone," or in any manner using the name "Glycozone" in circulars or labels put up by him, referring to

the said standard preparations of said Charles Marchand, in connection with instructions for the use of said product "Glycozone" as a preventive of conception, or in any manner connecting it with the use of his so-called "Applicator" as a preventive of conception, or in any manner making or selling, or causing to be sold in connection with said "Applicator," or using, or prescribing its use as a preventive of conception, or in any manner using, making or selling, or sending out circulars giving directions to use "Peroxide of Hydrogen" (Marchand's Medicinal) in connection with the use of said "Applicator" as a preventive of conception, and that defendant deliver up to be destroyed, or destroy all bottles, labels, circulars or other things containing complainant's trade mark.

Medico-Chirurgical Hospital, of Philadelphia.—The corner-stone of the new amphitheatre of the Medico-Chirurgical College and Hospital of Philadelphia was laid on May 12 with Masonic ceremonies, in the presence of the Governor and the Mayor and other distinguished men. The new building will be 70 feet wide, 95 feet deep and about 50 feet high to the main cornice, and will connect on the east with the hospital and on the west with the maternity department. The auditorium will accommodate 600 students, and will be adequately provided with instrument and sterilizing rooms. There will be besides a waiting-room for patients, rooms for medical and surgical examinations, an etherizing room, a private room for visitors, a room for the preparation of dressings, one for the storing of dressings, as well as private operating rooms, accommodations for a registrar and records, and finally a room for skiagraphic purposes. The building will be, so far as possible, thoroughly fireproof, and so constructed as to be readily rendered aseptic. Special consideration will be given to heating, lighting and ventilation. At the fifteenth annual commencement of the Medico-Chirurgical College, on May 13, the degree of doctor of medicine was conferred upon

54 regular and seven special students. The graduation address, which was delivered by Dr. L. Webster Fox, will be found in other columns.

THE PASSING OF ANTITOXIN.

A Paris correspondent of the *Cincinnati Lancet-Clinic* writes under the above caption that it seems that the enthusiasm manifested last year for Behring's antitoxin serum has commenced to diminish. Official statistics published by Bertillon give 33 deaths as the enormous weekly mortality from diphtheria, figures that have never been attained during any preceding year before the discovery of this celebrated so-called specific. Like the rest of serous maladies to-day treated by serum therapy, it is necessary to recognize the fact that such medication no longer keeps the promises made in its name. Besides, Drs. Sevestra, Gaucher and Legendre have been courageous enough to make known to the *Societe Medicale des Hopitaux* the serious and frequent accidents to which the antidiphtheretic serum gives rise even when applied to very simple cases of angina. But all this does not discourage the Pasteur Institute and its purblind disciples.

—New York Med. Record.

CANCER OF THE URETHRA.

Wassermann (*Annales de Gynec. et d'Obstet.*, April, 1896) has collected 24 cases of disease, one being original. The minimum age is 29, the maximum 72; only four occurred under 38. The disease seems due to persistent irritation. Repeated pregnancy appears to be the chief factor, yet nullipare are not exempt. Heredity is only noted in one case. Epithelioma usually develops around the meatus. The urethro-vaginal septum is more frequently involved than the upper wall, yet the latter, the clitoris, and the retropubic cellular tissue are sometimes invaded. As long as the growth is confined to the meatus or has not invaded one-half the length of the urethra a radical operation is usually successful; in the later stages the disease is best

left alone. Several methods of removing the growth have been adopted; they are cutting and plastic operations combined, and have to be varied according to the extent of the disease. Winckel's plan is the simplest. A sound is passed into the bladder, and the tissues around the urethra are transfixed by silks introduced one to the right, one to the left, and one under the sound. The silks are then drawn down and held whilst the urethra is dissected away. The mucous membrane of its upper part, well above the upper limits of the disease, is sewn to the vagina. A catheter should be retained for a time.

—B. M. J.

DEATH AFTER POST-PARTUM HEMORRHAGE.

After pointing out that forceps are seldom or never used in accouchement except in uterine inertia, a source of hemorrhage, and giving an instance or so of the necropsy of persons dying after flooding that was not profuse enough to deplete the circulatory system, Tarnier advises the profession to be slow, yes, very slow, to find fault with a colleague for losing a patient after flooding, as it frequently happens that a healthy looking woman might have some radical organic affection co-existent with pregnancy, and which carries her off without the flooding being to blame beyond the shock of parturition.

The Warm Bath as a Diagnostic Measure.—Richardson calls attention to the use of the warm bath in the diagnosis of diseased conditions of the abdominal cavity. The water of the bath is brought up to the natural temperature of the body, and the patient is allowed to recline in the water with all parts immersed except the face and head for a quarter of an hour before the examination commences. By that time the skin has become flaccid, and the parts beneath, especially the abdomen, are more readily felt through the abdominal walls. The method is applicable not only to emaciated subjects, but also to the obese.

—Asclepiad.

TRAUMATIC EPILEPSY.

Weissgesber (Munch med. Woch., April 21, 1896) relates two cases treated by operation, and which have been under observation for some time afterwards: (1) A boy aged 10 had a blow on his head when 18 months old. He had the first fit in June, 1891, eight and a-half years later. The epilepsy was of the Jacksonian type. Six months afterwards operation was undertaken. The periotum was found adherent to the bone, and a small defect in the bone itself was present. The surrounding bone with the dura mater was removed. A mass of cicatricial tissue was also taken away. In seven weeks the boy was discharged. He has only had one fit since, and this occurred three years after the operation. (2) A man aged 28 had a blow on his head when 10 years old. A few weeks after the accident he had a fit. Spasm occurred in the right arm, which, together with the right leg, became weak. Seven years later focal epilepsy supervened. The attacks lasted two or three minutes, and recurred every five, seven or ten weeks. During the last two years there had been three or four fits in the day. Over the left parietal region a depression was felt, and here a defect in the bone was found. The bone round it was removed, and a cyst discovered and laid open. The arachnoid entered into the cyst wall. The wound was plugged with iodoform gauze, the plug being removed in three days. There were no attacks for four weeks, and then they recurred every five weeks. During the last 18 months there had been no fits, but a fit occurred in November, 1895. The result in the second case was not as good as in the first, yet the improvement here was very considerable. Here also there was Jacksonian epilepsy. Unfortunately during recent years only in a minority of cases have such good results been obtained as here. Hence the whole

cyst, or even the centre beneath, has been removed, but better results have not been forthcoming. A definite conclusion as to the results of operation can hardly be given yet. The best results appear to have been obtained where the brain substance itself has not been directly involved, but where the lesion lies outside, as in a cyst taking origin from an intrameningeal blood effusion.

—B. M. J.

 THYRO-IODINE.

E. Baumann (Hoppe-Seyler's Zeit. f. phys. Chemie, Vol. 21, p 319) has, with E. Roos, been endeavoring to separate the active principle of the thyroid gland, and has, he thinks, succeeded. Roos had already shown that the active principle was not destroyed by boiling thyroid gland substance in dilute sulphuric acid (10 per cent.). When the fluid is allowed to cool the active principle forms part of the precipitate. This precipitate is removed by filtration and treated with alcohol (about 85 per cent.). The residue is treated with petroleum-ether, to remove fat and fatty acids, and is then dissolved in a one per cent. solution of caustic soda. This is filtered, and by the addition of dilute sulphuric acid a precipitate is formed, which when carefully washed and dried appears as a brown amorphous substance. This substance, which has been termed "thyroidine," is remarkable on account of its containing iodine in firm chemical combination, and by actual experiments as to its action seems to be the active principle of thyroid gland preparations. It is almost insoluble in water, and only slightly soluble in alcohol, but easily soluble in dilute alkalies. Baumann (Munch. med. Woch., April 7, 1896), says thyroidine has been shown to have the same therapeutic action as the thyroid gland itself in parenchymatous goitres, in myxedema, and in obesity. These results occur more rapidly than under ordinary thyroid treatment. The quantity of thyro-iodine present in the thyroid varies considerably. Abnormally large thyroids

contain only a slight trace of iodine. In 26 adults with enlarged thyroids only a trace of this compound was found. In Freiburg children thyro-iodine is present in less quantities than in Hamburg children. In children generally there is less thyro-iodine than in adults; the largest amount occurs between 25 and 55. In Freiburg, where goitre is common, less thyro-iodine is found in the thyroid than in Hamburg. Whether in goitrous districts there is less iodine in the earth and drinking water is not certainly known. For men and a large number of animals living on land iodine is necessary. Thyro-iodine undoubtedly passes from the thyroid gland to other organs. Iodine can be proved to exist in the thymus, and the investigations of Milkulicz, showing the diminution of goitres under thymus treatment, are interesting in this respect. If potassic iodide is given to animals the iodine present in the thyroid is increased. The same happens with iodoform and other iodine-containing compounds, but it is most marked after the use of thyroid or thyro-iodine. That thyro-iodine is manufactured in the thyroid, and is not a product of general metabolism, is shown by the fact that thyro-iodine is efficient in myxedema and iodine is not. The author concludes that less thyroid exists in goitres than in normal thyroids. In 5 colloid goitres he found very little iodine. In Graves' disease the same is apparently true, but further investigations are needed. Sheep's thyroid is relatively the richest in thyro-iodine. Grawitz (*ibid.*), of Gerhard's clinic, has investigated the action of thyro-iodine on metabolism in two women suffering from obesity. The decrease in weight of 3 kilos. in eight days was striking; only one g. of thyro-iodine was given daily. The increase in the nitrogenous excretion in the urine was remarkable; it amounted to 31 g., and accounted for the loss of weight. In the second case, after a week, one kilo. was lost, and subsequently three kilos. The general health was undisturbed.

—B. M. J.

EUCASIN.

Salkowski (*Deut. med. Woch.*, April 9, 1896) describes this new casein preparation. He first refers to his researches and to those of Zuntz and Potthast in which casein has been shown to have the same nutritive value as albumen. As casein in powder has many disadvantages, the author proposed a solution in sodic phosphate, but a preparation is needed which is soluble in water, and which in the form of a powder can be shaken up in soup without further preparation. It must have a pleasant taste, and the casein must not be precipitated easily from its solution. Therefore the author proposes eucasin, which is a fine white powder soluble in warm water, and which is prepared by passing ammonia gas over casein. He has carried out a number of experiments on animals to show the nutritive value of eucasin, and he compares it with somatose and its liability to induce diarrheal stools limits its value as an effective nutritive agent. In comparatively large quantities somatose is of value, perhaps through improving the appetite. After a loss of weight had been induced in a dog by feeding it on somatose, eucasin was given, with a speedy recovery of weight. The author concludes that eucasin is an albuminous preparation well worthy of a further trial for feeding purposes. It can be mixed with carbo-hydrate soups or with broth. It can also be used with cocoa and chocolate. Wine and beer should not be employed, as eucasin is least soluble in them.

—B. M. J.

Hemoptysis.—For the medical treatment of hemoptysis, in pulmonary tuberculosis, Professor S. Solis-Cohen prefers calcium chloride to any other drug. The pure crystallized salt is specified in the prescription, so that chlorinated lime shall not be dispensed. It is given in glycerine or simple elixir and water, or in infusion of gentian, ten grains to the teaspoonful.

—Philadelphia Polyclinic.

Prescriptions.

Coffee Dyspepsia.—Two French physicians say: "Caffeic dyspepsia resembles closely alcoholic gastritis, being characterized by phlegm in the morning, pain in the epigastric region, with radiation towards the back, coated tongue, distaste for solid food. The most important symptoms, however, involve the nervous system; there is insomnia, or sleep is accompanied by frightful dreams; when the patient stands upright he suffers from a sensation of emptiness of the head, and frequently from vertigo. In addition the muscles of the calf and thigh are affected by painful attacks of cramp, especially at night, which contribute toward making sleep impossible.

—London Med. Times.

Bronchitis.—

R. Ammonium chlorid.
Syrup of tolu.
Syrup of senegaaa 1½ fl. oz.
M. A teaspoonful for a dose.

If a spasmodic element be present, sodium iodide, 2 1-2 grains, may be added to each dose.

—Eshner.

Delirium Tremens.—

R. Potass. bromid.
Sodii bromid.aa 15 gr.
Chloral hydrat.10 gr.
Tinct. zingiberis10 drops
Tinct. capsici5 drops
Spir. ammonii arom.1 dr.
Aq.2 dr.
M. Sig.: Dose, a dessertspoonful.

—Vanderbilt Clinic.

Chronic Enlargement of the Tonsils will be benefited by painting every other day with a mixture of one-third compound tincture of iodine to two-thirds glycerine.

Yeast Nucleins in Tuberculosis.—1. In cases of pulmonary tuberculosis with cavities it does no good. 2. It may retard the progress of long-standing cases, so long as secondary infection with pyogenic germs does not occur. 3. A temporary cure (the

cases have not been long enough under observation to say more) may be obtained in early cases of small area. 4. It has proved satisfactory in urinary tuberculosis. Finally, the nucleins in other substances may act equally well, as yeast nucleinic acid.

—Vaughan.

Atrophic Rhinitis.—In atrophic rhinitis the diluted peroxide solution serves a double purpose, eliminating the stench by breaking up the decomposing matter, and helping—by the liberation of the gas and the consequent formation of bubbles—to loosen the crusts. The cotton-tipped probe is of the greatest service in dislodging these dried masses and wiping away strings of tenacious mucus.

Ozena.—

Pure glycerine70 grammes
Borax20 grammes
Distilled water30 grammes
S. Use as a nasal spray two or three times a day.

—Nouveaux Remedes.

Black Eye.—There is nothing to compare with the tincture or strong infusion of capsicum annum mixed with an equal bulk of mucilage or gum arabic, and with the addition of a few drops of glycerine. This should be painted all over the bruised surface with a camel's-hair pencil and allowed to dry on, a second or third coating being applied as soon as the first is dry. If done as soon as the injury is inflicted, this treatment will invariably prevent blackening of the bruised tissue. The same remedy has no equal in rheumatic stiff neck.

—Med. Rec.

Syphilis of Larynx.—An early diagnosis of syphilis of the larynx is important, as in this stage it can be satisfactorily treated, while neglected tertiary lesions are often incurable, except, perhaps, by radical surgical measures.

—Anderson.

Examination of Virgines Intacte.—The bimanual examination of virgines intacte should always assume the form of a recto-abdominal palpation. There is no need in these cases of a vaginal examination; the finger in the rectum will teach us all we wish to know concerning uterus, tubes and ovaries. The only difficulty to be overcome is to identify the cervix; a little practice will enable us to master this detail.

—London Med. Times.

Hereditary Syphilis.—The formula of Giberts' syrup is as follows:

R. Hydrarg. biniodidi ½ gr.
Potassii iodidi 2 dr.
Syr. zingiberis.
Aq. dist. aa 2 oz.

M. Sig.: Dose, five to ten drops for a child six months old.

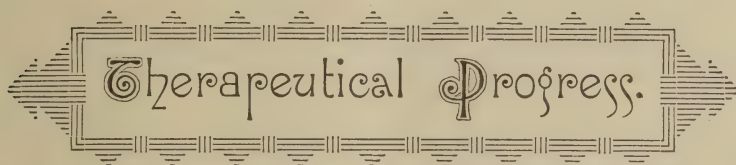
Malarial Cachexia.—A good combi-

nation for the anemia following malarial attacks is:

R. Ferri redacti 2 gr.
Pulv. ipecac 1-4 gr.
Acid arseniosi 1-40 gr.
Ext. colocynth co. 2 gr.
M. ft. pil. Sig.: Take one three times daily.—G. R. Lockwood.

Warts.—Surgeon Major C. A. Webb, A. M. S., recommends the use, night and morning, of liquor epispasticus lightly painted over the warts—genital or otherwise—as an effective method of treatment. It is preferable to snipping off with the scissors. There is no bleeding and no risk of infection. The excoriation of superficial mucous membrane, which is liable to occur to some slight extent, however carefully this preparation be applied, can be healed up in a couple of days with simple dressing. A layer of dry lint over the solution, after it has been coated on, will protect surrounding parts.

—Indian Med. Record.



BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

RETINOL.—Distillation product of resin. Yellowish, viscid, oily liquid. Antiseptic, externally and internally in venereal and cutaneous diseases. Solvent for iodol, aristol, cocaine, phenols, phosphorous, etc., the solution of the latter being very stable.

RUBIDIUM AND AMMONIUM BROMIDE.—White, crystalline, soluble powder. Recommended as a substitute for the potassium salt, but has not attracted much notice.

RUBIDIUM IODIDE.—Colorless crystals resembling potassium iodide in physical and therapeutic properties. Having a less depressing effect on the heart, and creating less gastric disturbance than

the potassium salt. Dose, 2 grs. 4 times daily in milk.

SACCHARIN.—Minute white scales soluble in 230 water, more soluble in alkaline media. Used as a sweetening. Antiseptic.

SALACETOL. (Salicyl-acetol).—White, shining, bitter leaflets very slightly soluble in cold water, scarcely, in hot water, soluble in 15 A. 25 castor oil. Intestinal antiseptic, anti-rheumatic. Dose, 30 to 40 grs. In diarrhea give in castor oil before breakfast.

SALICYLAMID.—Colorless, tasteless, thin, transparent plates, soluble in A. E., C., and 250 parts of water. Analgesic, antiseptic. Dose (ovarian pain, neuralgia, chronic

- rheumatism, etc.), 3 to 5 grs. Daily dose, 15 grs.
- SALIGENIN.** (Salicylic alcohol).—Colorless leaflets, of slightly bitter taste, soluble in water, A. Has been recommended for the same uses as salicylic acid.
- SALIPYRINE.** (Antipyrine salicylate).—White coarsely crystalline, odorless, sweetish powder, almost insoluble in water, soluble in A. Antirheumatic, analgesic, free from unfavorable heart action. Dose in acute articular rheumatism, 15 grs. every quarter of an hour for two hours; in chronic rheumatism 1 1-4 drachms daily, influenza or neuralgia, 8 to 30 grs.
- SALOCOLL.** (Phenocoll salicylate).—White crystalline powder, soluble in water. Antipyretic, antirheumatic. Dose, 15 grs. 3 to 4 times daily.
- SALOL.** (Phenyl salicylate).—White, crystalline powder or tabular crystals, almost tasteless and with slight aromatic odor. Sparingly soluble in water; soluble in 10 A., 1-2 E., C. External and intestinal antiseptic, deodorant, antipyretic, antirheumatic. Applied in powder. Dose, 1 to 2 drachms daily in divided portions. For coating pills intended not to act in the stomach, dip the pills in melted salol, 1-3 to 1-2 gr., giving coating to each pill.
- SALOL CAMPHOR.** (Camphorated salol).—Mixture of 3 salol with 2 camphor. Colorless, oily liquid. Recommended in purulent inflammation of the middle ear.
- SALOPHEN.** (Acetyl-para-amidophenyl salicylate).—Small, white, crystalline, odorless, tasteless scales, practically insoluble in water, soluble in A. E. Antineuralgic, antirheumatic (acute rheumatism, cephalalgia, migraine. Dose, 15 to 30 grs. for neuralgias, 1 to 1 1-2 drachms for acute rheumatism.
- SALUMIN.** (Aluminum salicylate).—Reddish white powder, insoluble in water. Astringent disinfectant (dusting powder in ozena, etc.).
- SANATOL.**—A solution of crude cresols in sulphuric acid.
- SANGQUINOL.**—A preparation of fresh blood defibrinated and evaporated. In pill form each pill said to represent 11-4 grs. of fresh blood. In anemia, etc.
- SANTONITOXIM.**—A derivative of santonin. White crystals, soluble in A. E., almost insoluble in water. Anthelmintic, less toxic than santonin. Dose, 2 to 3 years, 1 gr.; 4 to 6 years, 1 1-2 grs.; 6 to 9 years, 2 grs.; adults, 5 grs. Administer in two portions at intervals of 1 to 2 hours.
- SAPOCARBOL AND SAPROL.**—Solutions of cresols resembling lysol.
- SCILLIPICRIN.**—Amorphous, yellowish white, very hygroscopic powder. Readily soluble in water. Powerful diuretic, reducing the activity of the heart. Dose, 1-16 gr.
- SCOPARINE.**—Principle obtained from *cytissus scoparius*. Diuretic. Dose, 8 to 15 grains internally, or 1-2 to 1 gr. subcutaneously.
- SCOPOLAMINE HYDROBROMIDE.**—Small crystals or crystalline powder, soluble in water. Resembling atropine in action, but 4 or 5 times as strong as a mydriatic without its unpleasant effect. Applied in 1-10 to 1-5 per cent. solutions as mydriatic.
- SODIUM CHLOROBORATE.**—White crystalline powder, soluble in water. Powerful antiseptic, both in medicine and as a preservative of meat.
- SODIUM DITHIOSALICYLATE.**—Greyish white powder, hygroscopic and very soluble in water. Antirheumatic, antiseptic, etc. Dose, 3 grs. 2 to 4 times daily. Also externally and for foot and mouth disease in veterinary practice.
- SODIUM ETHYLATE.**—Brownish white powder, soluble in A. Escharotic, depilatory. Apply in 30 per cent. alcoholic solution. Chloroform arrests its action.
- SODIUM FORMATE.**—Minute, white deliquescent crystals, soluble in water. Antiseptic, anti-tubercular. Hypodermically. Dose, 3 grs.
- SODIUM PARACRESOTATE.**—

White powder, soluble in hot water. Antipyretic, anti-rheumatic, intestinal antiseptic. Dose, 2 to 20 grs. 3 times daily.

SODIUM SILICO-FLUORIDE.—White insipid crystalline powder, soluble in 200 water. Antiseptic, styptic. Applied in 1 to 500 aqueous solution.

SODIUM SULPHOSALICYLATE, ACID.—Crystalline powder of acid, astringent, taste, soluble in water. Antirheumatic. Uses and dose same as sodium salicylate.

SODIUM TELLURATE.—White powder, soluble in water. Antisudorific in night sweats of phthisis. Communicates garlie-like odor to the breath. Dose, 1 gr. daily.

SODIUM TETRA-BORATE.—Transparent vitreous mass, soluble in water. Antiseptic. Uses the same as boric acid.

SOLANINE.—Alkaloidal glucoside from solanaceous plants. Acicular crystals, almost insoluble in water. Not mydriatic; has been used as analgesic in neuralgia, the vomiting of pregnancy, bronchitis, asthma, etc. Dose, 1-6 to 1 grain 3 times daily.

SOMATOSE.—Slightly yellowish, odorless, almost tasteless powder, soluble in water. Nutrient. Mixture of nutrient salts of meat and albumoses, in weakened digestion (phthisis, carcinoma, etc.), 1-2 to 1 oz. daily in milk, soup, etc.

SOLVEOL.—Neutral solution of sodium cresylate and sodium cresolate. Brownish black fluid, miscible with water. Antiseptic. Applied in 1-10 to 1-2 per cent. solution for washing and dressing wounds.

(To be Continued.)



OF INTEREST TO WOMEN.

If you have weak lungs do not live in a damp locality, in a damp house nor in a house with damp or foul cellar or surroundings.

Do not live in a house with defective plumbing or bad drainage.

Do not frequent crowded or badly ventilated assembly rooms nor sleep in close apartments.

Adopt an out-of-door occupation, so as to live in the open air.

Avoid as much as possible everything that tends to depress; all excesses should be avoided; and keep free from anxiety and mental physical overwork.

These causes, by placing the system below par, render the persons less capable of resisting the disease (if exposed to the germs) in such a way as to bring about the development of consumption.

Celery is invaluable as a food for those suffering from any form of rheumatism, for diseases of the nerves and nervous dyspepsia.

Lettuce for those suffering from insomnia.

Water cress is remedy for scurvy.

A small piece of candle may be made to burn all night by putting finely powdered salt on it until it reaches the black part of the wick. A small even light may be kept in this way.

Ink may be taken out of paper in the following way if the stain is not too old: Take a teaspoonful of chlorinated lime and pour over it just enough water to cover it. Take a piece of old linen and moisten it with this mixture, and do not rub, but pat

the stain, and it will slowly disappear. If one application does not remove the stain let the paper dry and then apply again.

A healthy infant sleeps most of the time during the first few weeks, and in the early years people are disposed to let children sleep as much as they will. But from 6 to 7 years old, when school begins, the sensible policy comes to an end, and sleep is put off persistently through all the years up to manhood and womanhood. At the age of 10 or 11 the child is allowed to sleep only eight or nine hours, when its parents should insist on its having what it absolutely needs, which is ten or twelve hours at least. Up to 20 a youth needs nine hours' sleep, and an adult should have eight.

Raw beef proves of great benefit to persons of frail constitution. It is chopped fine, seasoned with salt and heated by placing in a dish of hot water. It assimilates rapidly and affords the best nourishment.

Lung exercises in breathing are the best cure for excessive stoutness. The best time for this is before dressing in the morning and after undressing at night. Five or ten minutes' exercise every day will reduce the flesh in a wonderfully short time. Stand erect with the head and chin well up and rise on the toes at each inspiration, holding the breath a moment, then expelling it forcibly and completely, coming down on the heels at the same time. Another good breathing exercise is to draw in a full, deep breath. Retain the breath while counting 15 and then slowly expel it.

WOMEN AND THE WHEEL.

Chicago has started a new occupation in connection with the bicycle fever. A bicycle cleaning and adjusting company has been started. This company employs expert mechanics, who make regular visits to their cus-

tomers, clean the wheels, adjust the bearings, put graphite on the chains and repair simple punctures. These mechanics exhibit cards identifying them as regularly employed cleaners and repairers, and when they are through they puncture tickets held by the wheel owners. That is called grooming the wheel.

It is erroneous to believe that bicycle riding should be avoided in every case of heart disease. Physicians who have made a study of this question declare that it may even be very beneficial in certain instances in which the action of the heart is feeble, and in which signs of fatty degeneration are found. Increased muscular exercise almost invariably improves the condition of the heart itself. There are, however, several indulgences that women with weak hearts should beware of, such as straining to climb hills and meeting head winds, excessive fatigue and particularly exciting the heart and calling upon its reserve strength by the use of alcoholic stimulants.

In Vienna, Austria, all bicycle riders before obtaining permission to ride on the public streets are required to pass an examination. They are required to ride between boards laid on the floor without touching the sides or edges of them. At the word of command they must be able to dismount either right, left or backward; until the rider passes this examination satisfactorily a license to ride on the public highway is refused him.

The latest whim of women cyclists is to have their wheels painted to match their dress. In London streets are seen cycles in various shades of green, brown and terra cotta. The fashion was started by the Countess of Warwick, who in summer had her wheel painted white, and who dressed in white from head to foot. In the autumn her suit was brown and her wheel chocolate tint, and now she wears green and her wheel is verdant as the woods.

—New York Advertiser.

The Times and Register.

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WHOLE No. 915.


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Original

SCARLET FEVER.

Its Nature, Materies Morbi; How Produced and Treatment.

BY W. R. DUNHAM, M. D., KEEN, N. H.

This form of disease, when considered from its true relations with other events, having in view its treatment, based on correct operative proceedings, requires a previous acceptance, more or less, of general principles that apply to all conditions of disease. That is, such treatise based on a more modern interpretation of natural plan, and recognized operative methods, connecting cause with effect, makes it necessary to determine first, the truth of the following alleged situation that we claim to be susceptible of demonstration, although I shall make no attempt at this time to present supporting testimony.

First. The cause of disease is passive; it does not act or make an impression, nor exercise any operative influence, all such language being obscure—failing to represent either a fact or operative principle in science.

Second. Functional disease is a condition; no other, and no different than abnormal exercise of involuntary vital force functions.

Third. The involuntary living human organism is never acted upon by any external agency, or operative principal except vital; and the real and true nature of any disease consists and is wholly implied in the methods exercised by abnormal vital force activities. Physiological action produces health; while pathological action constitutes active disease.

Fourth. There are four distinct and different functional methods in operative proceedings, constituting the total of ultimate special vital force functions; legitimately represented in the name of sensibility, instinct, sensation and contractility. And it is necessary to recognize certain distinctions between the voluntary and involuntary operations of the human organism. That is, the



voluntary is set in special activity in response to the will—the mind; while the involuntary is set in special activity in response to a sensation.

The cause of disease does not act, but it causes an abnormal sensation by its contact relation; which is succeeded by a pathological or abnormal vital activity, instigated by instinct—which constitutes active disease. The function of instinct superintends involuntary operations, although the dictionaries define this life function as exercising both voluntary and involuntary life acts. Therefore, to make a success in solving problems in biological science, we must recognize natural distinctions in life methods, in place of dictionary errors.

Fifth. It is easy of recognition that the causes of disease and material medicines do not act or exercise "active principles," but merely cause abnormal sensations from contact relation; while the sequences of such sensations are recognized in activities exercised in the name of pathological vital action—a substitute phrase signifying disease.

Abnormal sensation and irritability are synonymous terms, representing the same life principle; and when we accept that the involuntary human organism, which presents the conditions of both health and disease, will exercise special activity in response to abnormal sensation, the problem is solved, how the cause of disease produces disease. It is of greatest importance to have a correct idea of those distinct operative relations which precede more complex problems. An imitative practice, based on historic record of clinical report, without a comprehension of the why, will fail to meet the requirements of a more scientific education.

Please recognize that irritability is not due to the exercise of an "active medical principle," but from a passive contact relation of material. It is well to not ignore the having of a clear idea of small things. Sensation is that life principle which relates the human organisms to the contact world; some medicinal con-

tacts occasion agreeable sensations, erroneously called nerve foods and nerve tonics; while other kinds may occasion disagreeable sensations of various degrees of irritability.

Thus, the whole materia medica constitutes an assortment of material to be used for the producing of special sensations, being the only method provided in nature enabling the physician to indirectly invite the involuntary living organism to exercise such acts as may seem most beneficial under the existing circumstances. Why not think similar with nature's methods?

Sixth. It is necessary to recognize and accept that the causes of disease require to be classified as primary and secondary. A distinction that would be fatal to the comprehension of events if ignored. That is, provided we are to recognize that disease begins; that pathological vital action succeeds to the fact of a previous abnormal sensation.

If we adopt this relation, it then becomes essential to distinguish between primary causes of abnormal sensation existing, as introduced from without, and secondary causes that are developed within the human organism. Thus after disease—pathological vital action—has been started from some primary cause introduced from without; such pathological action develops conditions and products entitled to be called secondary causes, existing as pathological fluids; while later such fluids may experience chemical changes, either of which form of product often constitutes what is called blood poison, that may further complicate and perpetuate abnormal disturbance. Such products, together with abnormal temperature of the blood, developed also by pathological action, constitute secondary causes of frequent serious relations.

Seventh. Not only do the foregoing paragraphs include thought factors, implied in the make-up and nature of scarlet fever, essential to its comprehension, as an event in biologic science, but other factors not presented in medical literature also enter into this problem.

Scarlet fever is one among other contagious diseases, classified as non-recurrent; thus it is important to determine what constitutes the essential condition, enabling us to understand why some forms of contagious diseases are recurrent, while others are non-recurrent. To approximate this solution, after recognizing the fact and relation of secondary causes, existing as pathological virus, we are then required to accept that such virus constitutes the materies morbi of this disease; that is, the specific virus of contagion is made to exist as a sequence of previous pathological vital action.

And the reason why some contagious diseases are non-recurrent is due to the special fact that the human organism can seldom develop such virus but once in a lifetime. This statement may be considered a visionary theory and disreputable, which cannot be proved. But this theory can be demonstrated as correct by a systematic examination of the various factors implied in the make-up of operative biologic science. This, like the previous theories, will fit the visible facts presented. Please keep in mind that the present plan, on which medical theories are based, is so far removed from fact—like the Ptolemaic plan of astronomical science—that present accepted medical theories fail to represent the methods of nature. Also, it is inferential that the virus of all contagious disease is a pathological vital product, manufactured within the human organism, or by other animal organism. And such virus may lose its specific characteristic from chemical changes, as illustrated with vaccine virus, when exposed to the air. The principle of disinfection is based on the effecting of chemical changes with vitiated organic products.

The foregoing enumerated thought divisions of this subject constitute a basis from which an explanation may be constructed of more or less interest to those who care to inquire into the essential nature of disease as a whole, and the disease—scarlet fever—as distinguished from other

forms of disease. And it is no more possible to comprehend the essential nature of disease—that problem which is recorded in medical literature as not understood—without a clear idea and recognized correctness of the enumerated divisions of this subject, than it is for the astronomer to comprehend how certain phenomena can be presented without a previous knowledge of the operative plan of that department. Recognizing that disease is pathological vital action, and that it begins, as succeeds to a previous abnormal sensation, we must further accept the relations of special sensations as essential for the development of different diseases. With disease, the relations of cause to effect prevail as with medical relations, alluded to in the closing of section fifth. A distinguished medical writer says: "Medicines seem to act like the remote cause of disease." The sensation of nausea develops results not produced from relations of different sensations. Some sensations are recognized by the voluntary department—sensibility thus calling attention to duties or operations to be performed by that special function; while other sensations are recognized only by the instinct—being a notification of activities, essential to be executed by the involuntary special function.

Nature's operative methods are implied in the previously mentioned arrangement, of four different operative life principles, rather than in accordance with the present teaching of innumerable mysterious "active principles" not vital becoming introduced from without, which exercise activities both good and bad with the organs of life. It is essential to comprehend how practical facts in science are made to exist. There is so much to be said that is closely connected with the nature of disease that it seems important to make more or less digression from the text of the subject. In medical literature there will be frequently found expressions by many physicians that certain medicines will "ward off further attacks of disease and also in-

crease the resistance of the body against disease." While such language is of conventional use, yet it is as destitute of correct representation as the expression of "the sun's revolution around the earth."

Active disease is no more an attack on the human system than is the condition of health, and there is no influence to resist. Disease is simply—if that is the right word—perverted vital action of the powers within—of the involuntary vital force activity. A restoration of pathological activity to physiological activity constitutes the operative change from disease to health and reversely. The language of the books is usually expressive of the thoughts of the writer, and while it is of great practical advantage to think correctly an error of thought that has so long been accepted with entire satisfaction may be as slow of elimination as the ideal astronomical plan with the ancient mind.

Strong and unmistakable language is required to express the lamentable situation of satisfactory medical science doctrines—too strong to be elegant, yet a reminder of existing Divine wisdom, unrecognized, bestowed upon an unappreciative people. The cultured mind while laboring with all commendable zeal for the development of a more successful life-saving medical practice is handicapped with the acceptance of erroneous, unscientific doctrines that have come down to us from remote ages—heretofore irresistible and impossible to vanquish. It is difficult to convince the intelligent mind that a gigantic delusion is being perpetuated—that the medical mind has failed to recognize the correct fundamental principles of biologic science. Personal influence may suppress a review of the situation for another generation, but Divine authority is responsible for the methods of science, while man is responsible for its recognition. There is no field for intellectual pursuit equal in importance.

The accepted thought plan of medical science of to-day is so low down that it is difficult for the laymen to distinguish the difference of utility

between a cultured physician and the ignoramus who peddles wonderful curative medical powers of "latest discovery." As the situation exists the medical profession is responsible; it has developed a monstrosity of expectancy from "active medical principles," that may be introduced from without, which makes it seem rational reason to the unprofessional mind that it is of minor consideration as to who shall dispense such highly reputed medical powers. The time has come for the exercise of original thought, independent of the doctrines of acceptance; that may elevate this department to a level with other branches of natural science.

To return to the subject, it is not difficult to accept, provided the *materies marbi* of scarlet fever is a pathological vital product; that the human organism is liable to develop such special disturbance once in accordance with the nature of things. And with some individuals this particular pathological act may be developed into activity from different surroundings, distinct from the contagion of virus, of previous manufacture. Thus we may be able to approximate a comprehension of how those isolated cases, which develop far away from all known contagion are made to exist. This is not an extravagant imagination, for there certainly must have been a first case, and it is rational reason to infer that similar relations for such development are still in force.

The immunizing principle as a protection against non-recurrent contagious disease is implied in the fact that the *materies marbi* of such disease is a product of pathological vital action, which is seldom developed but once in a life time. Thus a modified virus will occasion this particular pathological disturbance less severe; enabling elimination to more nearly keep up with the production of virus. And when such disturbance has once been made to exist in a mild form, even pure virus later, when introduced, will not occasion such degree of disturbance and rapid manufacture of the poison as would otherwise occur, without such pre-

vious pathological operation. The danger with such disease is made to exist, when the elimination of the poison does not keep up with the supply together with the increased temperature of the blood, which secondary causes of disturbance occasion serious complications.

The so-called disease germ as recognized in a micro-organism is merely poison that has previously existed as organic filth material and pathological virus, organized into microscopic life form. That is, such special cause of disease, such virus, has become the food of micro-organisms, being bottled up as we might say, giving it a longer period of existence previous to destruction by chemical changes. In brief, certain microbes are carriers of poison. And even as objectionable and dangerous as medical literature has made the microbe, those organisms are less injurious while existing as such, than was the virus from which the organism was constructed.

Such organisms favor elimination of virus more safely; thus there is expressed a divine wisdom in such provision of micro-organisms. The large "army" of microbes that find food for a brief existence during such disease all perish when the food supply is cut off by restoration to health.

The material cause of disease does not act, as exercise influence, but is passive and merely causes abnormal sensation from its contact relation. This whole matter is plain, when we recognize the true nature of disease, that active disease is pathological vital action, occasioned by abnormal sensation. Having acquired a clear idea of operative factors with disease in general, and scarlet fever in particular, it becomes easy to infer what should be the rational treatment in anticipation of greatest success.

There are two divisions of secondary causes contributing to further complications, existing as pathological virus and increased temperature of the blood.

Pathological virus is a great disturber in many forms of disease, as well as in a higher temperature of

the blood. And with scarlet fever such temperature favors the rapidity of pathological construction of virus. Among the existing pathological conditions there may be a large amount of virus in the blood, which nature is trying to eliminate through the skin, and the large increase of blood in the capillaries mechanically closes the pores, preventing the escape of the virus. And with such retention, together with the increased temperature of the blood, there exist two kinds of secondary causes, before alluded to, which further complicate affairs and may prove of serious and dangerous relations.

Thus, in the management of scarlet fever the leading treatment consists in reducing the temperature of the blood by conduction; the application of wet compress and wet sheet packing of the trunk of the body, of a lower temperature, frequently changed, serves a threefold purpose. Diminishing the rapidity of virus construction, reducing the quantity of blood in the collapsed capillaries, and restoring the function of elimination through the pores is the safest method of elimination. The essential nature of scarlet fever as previously outlined, being a pathological disturbance which is manufacturing virus. Such virus, for the best interest of the patient, should be eliminated more nearly in proportion to its manufacture. This theory appears well on paper, while the practice will enable the patient more frequently to have opportunities for the expression of gratitude.

The free use of ice in the mouth and cool water drinking constitute an important factor of the treatment. I have treated scarlet fever for thirty years on the plan suggested, with a success more than equal what has been effected by other methods. Drugs fulfill a very minor part of a rational treatment.

M. Lemoine, before the Societe Hopitiaux, in Paris, recently advanced the idea that the secretions of the mouth with scarlet fever require disinfection rather than the desquamating epithelium. Such suggestion is in the right direction, for the vapor

of pathological product in contagious disease is often the medium of infection. Says the American Medical-Surgical Bulletin" in commenting on the suggestion of M. Lemoine, "until the pathology of contagious disease is better known it may seem rational treatment." I will suggest that the way to develop a better knowledge of the pathology is to refuse to accept the doctrine that the causes of disease act, and recognize the fact that active disease is pathological vital action, that may manufacture the specific virus of contagion.

There may exist peculiar idiosyncrasies where the organism will manufacture virus in great abundance at a late period of serious virulency, developing abnormal sensations called irritability, sufficient to cause persistent convulsions continuing for hours, and until death, unless arrested. Convulsions thus caused to have a beginning, are soon attended with an additional secondary cause of further disturbance, existing as a recently increased temperature of the blood.

In such instance the hot bath so often made useful in mild forms of convulsions, is of no benefit, but the opposite. And I have in five instances taken the patient from the hot bath and enveloped the entire body in a cold wet sheet, which has always terminated the convulsions in from five to ten minutes, and preserved the life of the patient.

With all forms of acute disease, too little importance is attached to the relations of a secondary cause existing as a higher temperature.

The nearer the temperature is kept to the normal, the less severe the disturbance; which means that we

should conduct the disease, the pathological action, through its period of abnormal activity at a lower temperature than would otherwise prevail. Do it by conduction, rather than suppressing vital activity from drug relations.

The physician will recognize more advantage in the method suggested when he accepts that active disease is pathological vital action, and that we are restricted in the treatment of disease largely to the guiding of the involuntary active vital principle rather than in the supply of "active medical principles."

We are living in an age of educated delusion, where great expectancy is made to prevail in a belief that some wonderful and mysterious curative agency exists as an active principle, not vital, which may be supplied by the human organisms, that temporarily, to say the least, may be substituted for vital force. Such delusion has already seriously perverted the rational intellect of a civilized people, and more seriously been instrumental in diminishing the population of the earth.

A correct theory is of great utility; it enables the practitioner to know what not to do, which is frequently as much advantage to the patient as to know what to do.

In place of comparing the language of this article with the expressed opinions of accepted authorities, endeavor to ascertain whether or not it may be truly expressive of nature's methods in this department of the living universe. To develop a natural science means simply acquiring a comprehension of nature's operative methods.



VASCULAR MOBILITY AND STASIS, INTERRUPTION, ARREST AND RESTORATION OF THE SANGUINOUS WAVE, PHYS- IOLOGICAL AND PATHOLOGICAL.

BY THOMAS H. MANLEY, M. D., NEW YORK.

(Continued.)

HAEMOSTASIS, HAEMOTHERAPY,
PHYSIOLOGICAL OR VITAL,
MEDICINAL OR CONSTI-
TUTIONAL, MECHANICAL OR SURGICAL

Several of the questions which have a bearing on the morphological elements of the blood, its chemistry and its movements, the circulation, have been considered previously in a very brief and elementary manner. To have pursued this topic into the manifold variations observed in deranged conditions of health, as in disease, with the rich harvest of material provided by physiologists and hematologists, would have been a task of most fascinating interest and of a prolific yield had circumstances permitted it.

As it is, we are obliged to turn to the next phase of the subject, viz.: The escape of blood from its vascular conduits, either in consequence of disease of trauma.

PATHOLOGICAL HEMORRHAGE.

In order that the influences in operation in the production of hemorrhage may be understood, it becomes necessary to detail briefly some of the fundamental constitutional causes which give rise to it.

These may be divided into three classes; the first is inherent or hemic, these conditions residing in the blood itself; one of which, hemophylia, was briefly touched on in the last chapter. This is a constitutional vice, the real essence of which is not yet understood, although we all know the ultimate organic changes in the blood of those individuals affected. It is well known, for example, that the fibrogenous ferment is wanting, or fails to act.

This condition may be artificially induced. It has long been noticed that the blood withdrawn by a leech

fails to coagulate. Several experimenters have taken the blood of a fresh leech bite and injected in into the veins of healthy animals. Soon after, on division of the tissues, a perenchymatous hemorrhage set in, which could not be controlled and the animals sunk in mortal syncope.

In all instances it was noted that after twenty-four hours the property of spontaneous coagulation had been recovered. Another curious feature has been observed in this connection, viz.: that this condition of artificial hemophilia could be propagated at leisure from one animal to another, the aplastic state of the blood remaining as pronounced and fatal in the last as the one first injected with the fluid leech blood. From this curious and interesting illustration of transmission of disordered physiological process, we may infer that by hereditary transmission a vice of the constitution may be indefinitely perpetuated. It is to be feared, however, that "hemophylia" is only too often made use of as a makeshift, when the real cause of death has been want of experience, timidity, or neglect on the part of the medical attendant. Certainly under many circumstances a mortal hemorrhage may occur, quite beyond our power to control, but this is not dependent on blood changes, but the situation of the vessels. In all protracted, wasting diseases the blood shares with other tissues from the effects of degenerative changes.

Not only are the corpuscular elements profoundly affected, but its plasticity is greatly reduced or entirely destroyed. In my own seven years' service at the Almshouse and Workhouse Hospitals, on Blackwell's Island, in this city, this was often well demonstrated. In the service there the majority of those who

found their way into the wards of the hospital were physical wrecks, very advanced in years, chronic alcoholics or syphilitics. Various types of malignant disease, tumors and affections of the passages, rectal and genito urinary passages in particular, in men and women were numerous.

It first struck me, as a most fertile field for surgical operations, but, a short experience soon convinced me there was no chance of even every reasonable degree of success through surgery on this class. Along with other things, diet was bad; in the winter season not enough of vegetables being given, scurvy was always rife.

In my first operation for removing an epulis, my patient nearly bled to death in the chair. The blood seemed to be absolutely without any coagulable power. She never rallied from the shock and died on the third day. My next operation was for vesical calculus, in a man; incision by the perineal route. Everything went off well at time of operation, but after a year the wound in the perineum was not yet cicatrized. Briefly, my experience soon convinced me that ordinary surgery in domestic life and pauper surgery were quite different in results. And it is my impression, that those lessons on military surgery which are being taught by gentlemen who never "smelt powder" or experienced the horrors of war will

have practically no application at all in the field of battle.

Change of climate, depression of spirits, insufficient food, bad water, exposure, and many other things, tell with terrible effect on the young soldier.

Starvation and exposure are well known as most prolific causes of diabetes and tuberculosis, depraved conditions of the system, in which a mere scratch may produce gangrene, troublesome ulceration, or provoke a hemorrhage, which no hemostatic can be depended on, to always effectively control. The why is, because the circulatory current is diseased. My early experience on Blackwell's Island so dampened my enthusiasm for surgical exploiting, that I essayed no more of it there, except in imperative emergency cases, my attention being turned mainly to autopsy and pathological work during my service.

In certain physiological conditions, and situations, the blood fails to coagulate. It has been noted that in those struck by lightning or in animals hunted to death in the chase, the blood remains fluid. It has been observed in those who have sunk late in typhoid fever from intestinal bleeding the escaped fluid is without a strong tendency to coagulate. The converse is the case in cancer, in which for some reason unknown, there is a hyperplasticity of the blood.



MOTHER.

Mrs. Jos. R. Clausen.

I'm yearning for thee now, Mother,
 I miss thy gentle smile;
 But more, the kind and gentle words,
 That did my cares beguile.

I think oft of that smile, Mother,
 So sunny, cheerful, bright;
 So radiant, that to us it seemed
 To make e'en darkness light.

'Tis sad without thy love, Mother,
 So earnest, tender, true;
 It fell upon thy children's hearts,
 Like sweet, refreshing dew.

I muse upon that faith, Mother,
 The faith you never lost;

The anchor of thy trusting heart,
 When weary, tempest toss'd.

How often in the past, Mother,
 When death my loved would take,
 Thy faith has lifted up the heart
 That seemed so nigh to break.

And since it called for thee, Mother,
 And took thee from my side;
 The world has surely seemed to grow
 More empty, cold and wide.

And now, when sad and worn, Mother,
 Or struggling with heart pain;
 My spirit yearns so longingly
 To hear thy voice again.

<p>COCAINE</p> <p>C.P. ANHYDROUS CRYSTALS.</p> <p>STANDARD OF PURITY</p> <p>THE WORLD OVER.</p>		<p>MURIATE</p> <p>BOEHRINGER-B.&S.</p> <p>DISPENSED BY</p> <p>ALL DRUGGISTS</p>
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Editorial

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TU NE CEDE MALIS.

With the above invocation of Horace, the physicians of New York, a little less than a year ago, irrespective of color, united their forces for war to the knife with those whom in the near past they had been disposed to regard as their trusted friends and defenders. The plot had been laid, a pliant commissioner, despised and detested by the profession at large, determined to secure a reappointment by fair means or foul, looked about him for some means to secure this end. He saw his opportunity sooner than he expected. What would be simpler and more effective than a deal with the medical colleges, whom this crafty manipulator deluded himself into believing were authorized to speak or act for the profession? The three medical colleges, jealous of the progress of some few connected with no schools, and hungry for the odd morsels of patronage which they did not control, had been for years secretly urging on the city government the necessity of their control of everything, now saw their chance. * * Dr. John H. Girdner had been an applicant for a charity commissionership, and college-men with others

urged the Mayor to appoint him early in the spring of '95.

But shortly after the suspected deal of the colleges with Porter, there was a sudden revulsion of feeling among those self-constituted almoners of the body medical, when they again made another pilgrimage to the City Hall and begged the Mayor not to appoint so "unbusiness-like an individual as a physician" to Porter's place. Soon, we heard of the "Hospitals' Medical Society" indorsing and commending this newly-chosen selection. This man, Porter, had hoodwinked the other commissioners and the Mayor, and had turned fifty-eight physicians, like dogs, on to the road without cause or pretense.

Now that the blackest piece of medical piracy that ever disgraced our profession was consummated, it remained for the colleges to laud Porter. The Mayor had expressed his intention of appointing a Roman Catholic on the Charity-Board, but Porter was a Presbyterian. The colleges had carried their point by strategy, and this man, who wanted to succeed himself, soon found a means of deception, which very near-

ly succeeded. Letters came pouring in to Mayor Strong, from the very fountain-head of Christianity—from Rome itself—possibly from the Vatican, entreating him to reappoint Porter; and, to give this all the more force, the Catholic Archbishop of the New York Diocese sent a similar request. But, at the eleventh hour, the whole plot fell through, when a deputation of the Paulist community came before the Mayor and insisted that if a Catholic were to be appointed he must be a representative, bona fide member of that faith. Besides, all this time, the profession, which had finally waked up, moved in force on the Mayor, and in the strongest terms demanded the displacement of Porter.

The Mayor decided that the best thing he could do with him was to give him a dose of his own medicine and attach him to the army of "cast-outs."

The County Medical Society and Association took prompt and unanimous action in the matter, and have presented such a remonstrance against the present entente cordiale that the prospect of another "reorganization" of the medical service of the public hospitals is soon expected. Already, the faculties have taken fright and have resorted to the weak subterfuge of a "petition" to bolster up their weak case, and Bellevue Medical College, through its mouth-piece, a pretended advocate of the old code, has raised the wail, that the action of the profession-at-large "has degenerated into an attack on that school;" which is without any foundation in fact, though there is a strong feeling in the profession against public property being occupied by any medical college, or the city going into the medical-teaching business.

In the meantime, a new phase of the question has been forced on public notice, in the demands of the homeopathic and eclectic medical colleges for a share of hospital appointments, and the hostile attitude of the whole profession not compromised by teaching connections against the present regime and its unflinching determination to have the wards of the city hospitals thrown open to medical boards, appointed from its ranks, by the nomination of their medical societies.

The above indicates the present turbulent state of medical matters in the public service of New York.

A great wrong has been committed. The "hospital grab," which its consummators chuckled over a year ago, has been universally condemned by all the leading independent medical journals of America, and in a solid, unprovoked phalanx the fight will be fought until common justice is triumphant. Conspiracy, despotism nor treason can never thrive or prosper in the ranks of the medical profession, for with wrong or evil it will never compromise.

One by one, the college representatives denied their complicity in this scandalous transaction; but the action of the profession in demanding redress in this matter has brought them out of their holes and compelled them, to not only confess their participation, but entreat for terms.

It might, perhaps, seem to the casual reader that this is a matter of local interest only; but let no one delude himself into this impression, for it concerns more than 4000 physicians, involving a principle that constitutes the very foundation and pedestal of honesty and loyalty in the ranks of our entire profession.





CLINICAL CASES REPORTED BY E. H. WOOLSEY, M. D.,

Chairman of Section on Physiology and Dietics of the American Medical Association.

(Concluded from Our Last Issue.)

CEREBRAL HYPERCEMIA FROM LOSS OF SLEEP.

In 1888 Lieutenant L., aged 28, was admitted to hospital in consequence of having been on ship duty for five consecutive days and nights.

He had paroxysms of cerebral hypercemia coming on suddenly several times a day, though there was some premonition, such as vertigo and headache. When having such symptoms he could walk a short distance, a half block or so, with staggering gait, but then had to lie down or fall. Upon lying down or falling he would flex his body strongly and would become unconscious. The torpor would be so deep that he could not be waked, but in an hour or so would wake voluntarily and remember what had occurred up to the moment of such sleep.

When these attacks came on his face became flushed and during the period of unconsciousness cyanosed, but upon waking would resume its natural color.

Under medication it was found that nothing would abort the paroxysms, but a large dose of bromide of potassium or soda, given promptly when the face began to flush would render the paroxysm less severe though the after effect seemed to be injurious, as it left him in a semi-torpid condition for some time after the ordinary duration of the attack. After several days' treatment he happened one day, when a paroxysm was coming on, to be in the office, where galvanism was accessible, and I quickly applied a cur-

rent of 5 ma. to head, moving the positive pole over the forehead and holding the negative steadily at the back of the neck, and continuing the application for five minutes.

He experienced immediate relief; the flushing and headache disappeared and the attack was averted. From this time on the same electrical treatment was given whenever he had any flushing of face or headache, and always with the same salutary effect. In the course of a few days it was found that a seance of a minute only was all that was required. After two weeks of such treatment the patient seemed perfectly well, but the momentary application of the current was made occasionally when the patient felt the least anxiety about himself for some two weeks longer, when he was discharged convalescent, but was advised not to do any mental work for a long period. He, however, soon after resumed his studies, visited Washington, was examined and promoted. He has since been well and in active service.

CEREBRAL MENINGITIS TRAUMATIC.

In 1891, S. R., aged 32, a brakeman, was admitted to hospital on account of cerebral meningitis, resulting from a lateral crush of the head between cars three months before. He had been in another hospital during that period and said that he had not had a half hour's continuous sleep during all that time though he had taken frequent and large doses of anodynes. Along the sagittal suture and be-

tween it and the left parietal eminence there was so much hyperesthesia that the slightest touch of the finger caused intense pain. I treated him for a few days with various anodynes and had him watched closely and it became evident that he could not be made to sleep longer than five or ten minutes at a time. I then had his head shaved and tried galvanism, placing a large light electrode over the sensitive part of head, and an ordinary sponge electrode (negative) in left hand and turned on through a rheostat, a downward current of 2 ma. This was all he could stand, and at times during a seance of ten minutes it became necessary to shift the head electrode.

The current caused some immediate relief of pain and tenderness and also a feeling of numbness in the left arm. The same treatment was repeated that day with the same result, except that the relief of pain, etc., of head and the numb sensation of left arm lasted rather longer, or about two hours, during which time he fell asleep in his chair, the first natural sleep since his accident.

On the following day he could tolerate a little stronger current—3 ma.—though it had to be reduced temporarily during the seance on account of severe burning sensation.

The experience of relief from pain and also the feeling of numbness again followed the treatment and lasted for three hours, and he again slept after the seance.

Similar treatment was kept up daily and occasionally twice a day with similar effects. The only modification of application was the shifting of the negative electrode carefully to the other hand, occasionally during the seance, and in this way the numbness of the left arm was prevented. The patient steadily improved; the current was gradually increased in strength; the hyperesthesia and pain became less and less, and the relief after each seance gradually lasted longer until in the course of a month he got sufficient sleep—three or four hours regularly after seance, and some at night—without the use of any medicine. At the end

of two months' treatment he was discharged cured and has worked steadily since.

MENIERES DISEASE.

Last October (1894), Mrs. H., aged 26, married and mother of two healthy children, and also in apparently perfect health herself, consulted me about a "ringing in her ears and noises in her head," particularly troublesome in the right ear, which had troubled her for two years, at times causing such confusion that hearing was difficult. She was examined by an aurist, who expressed to me the opinion that the case was one of Menieres disease. She had accidentally discovered that quinia would relieve her, but also that when used daily for some time it aggravated the trouble, so she had come to use it only on occasion of social events. I gave her, with ordinary sponge electrodes, from ear to ear, a current of 1.2 ma., reversed frequently during a seance of five minutes, by changing the electrodes, as the pole reverser caused pain.

During the sitting she expressed herself as somewhat relieved, and on the following day stated that the noises did not trouble her for two hours after treatment.

I repeated the same method daily, except Sunday, for a month. The result of each treatment was nearly the same, except that from day to day the subsidence of noises, etc., during seance was more and more complete, and the relief was more and more prolonged.

On two different occasions, however, I finished the seance with the positive electrode at the right ear, and upon her return after such treatment she complained that she had not received the usual benefit.

On all other occasions I finished the seance with the negative electrode at the right ear.

After a month's treatment, she seemed quite well except that after any unusual excitement there would be a temporary return of noises, etc. I now gave only three or four treatments a week until Christmas time and for some weeks she had not the

slightest return of her trouble. I did not see her again until the middle of January, 1895, when she returned in almost the same condition as when I first saw her. I resumed the same treatment with the same measure of improvement and for a month she has had but two seances a week and has not had any return of noises.

ABSCCESS OF FALLOPIAN TUBE.

In December, 1894, Mrs. L., widow, aged 22, had her menses suppressed by cold, and had pelvic cellulitis and evidences of the formation of an abscess in the left tube or ovary. After general treatment it was deemed proper by consultants to do a laparotomy, but she objected, and after washing out the uterus repeatedly with bichloride solution (though not finding any evidence of intra-uterine disease) the experience of Dr. Smith occurred to me, and I introduced a uterine electrode and carried its point to, and possibly engaged it within the left tube. This was connected with the negative pole, the positive placed in her hands and 15 ma. was administered carefully for eight minutes.

This caused considerable pain, and rather severe back pains followed the treatment and continued for two hours, when she suddenly got relief and this was accompanied by a profuse flow of pus from the uterus. From this moment she improved and about the only other treatment given was a hot vaginal douche of 1 to 4000 solution of bichloride twice daily. The discharge of pus continued freely for about three days and then gradually diminished and in the course of three weeks ceased. She passed the time for her next period without menstruating, except to the extent of a mere show on one day and then began to suffer pains and from abdominal tenderness, and it seemed that she was likely to have another attack of inflammation and suppuration.

Feeling sure now that the trouble came from stricture of the left tube I repeated the electrical treatment with a milder current of 10 ma. for eight minutes.

This was followed by backache and increased soreness about the left ovary, but during the night her courses came on freely. She afterward had no serious difficulty, has since menstruated regularly and is now in perfect health.

SUPPRESSION OF MENSES.

On March 11, 1895, Miss B. B., aged 20, consulted me at my office. Her menses had ceased suddenly two years before and had not returned, but she had had instead about once a month a slight thin leucorrheal discharge, preceded by such feelings as she had previously experienced at time of natural menstruation. She was emaciated, weak and enemic, but had no evidence of lung disease. She had been treated by two gynecologists, who had dilated the uterine cervix and had given her emmenagogues and tonics.

Upon examination I found such a stenosis of the cervical canal that it was with extreme difficulty I passed the smallest uterine sound.

Being unable to pass the smallest of my electrical sounds, I again passed the small uterine sound through the canal and connected it with the negative pole, and placed the positive electrode in the patient's hands, and turned on a current of 15 ma., and a bloody froth—hydrogen gas mixed with a little blood—oozed out as usual from the os.

I moved the sound backward and forward constantly during a seance of ten minutes, and at the close it passed easily.

The current was turned on and off slowly, causing no shock, but the patient felt a slight burning sensation in her hand and some slight abdominal pain, and at the close of the seance complained of backache. It was nearly time for her monthly leucorrheal period. A week later she called and informed me that two days after the treatment her courses came on freely and naturally and that she felt much better. Three days prior to her April period I gave her another electrical treatment like the first, except that I used a larger sound and a much weaker current

(8 ma.) for eight minutes. A week later she again called and said that her menses came on quite naturally.

The stenosis of the canal had evidently been permanently relieved; she had some color; had gained in weight, was stronger and felt quite well. She has since remained well.

RHEUMATOID ARTHRITIS. I

On March 20, 1895, the author was called to Mrs. L., aged 60, married and mother of several married healthy children.

Found her in a wheel-chair suffering from arthritis of the larger joints of the extremities, those of the left side being most affected. She had been disabled for nearly two years and had not been able to walk a step or lift an ordinary book for over a year, and could not on account of weakness of the left knee, extend the left leg, nor on account of weakness of the wrists extend either hand. The muscles of the extremities were wasted and flabby, but her face had a good color, her mind was unimpaired and her appetite good. She had been treated by several physicians, some of them eminent, and one had administered galvanism so strong as to be painful for a period of six months, but she had grown steadily worse. Besides general treatment similar to what she had previously received, I gave her galvanism daily for two weeks and since then have given her four treatments a week. The strength of the current has been uniformly 6 ma., and this is all she can comfortably bear. In such cases, and in most cases, I may say, I consider that a painful current is usually injurious.

The current has always been supplied through a rheostat; length of seance, 10 minutes. One electrode is placed at the feet. During the first half of treatment a hand electrode is moved over the spine with an ascending current for four minutes, with a descending current for the closing minute.

Then, during the second half of the seance, the hand electrode is placed in the left hand and the right upon that; or both hands, wrists, and oc-

asionally both elbows, are well wrapped in a wet towel, to which the hand electrode is applied, and for four minutes the current is given in an upward direction, and during the last minute in a downward direction.

This method fits my notion, and it fits the patient, for she is getting well. On one occasion I ended the seance with an upward current, without the patient's knowledge. That night she did not sleep and this was the only restless night she has had since I have attended her. The joints are gradually resuming their natural appearance, and she is gaining flesh; she can now extend the left leg and the right hand fully and the left hand nearly, and she can walk down a few steps and seat herself in her carriage without assistance.

DISSEMINATED SPINAL SCLEROSIS.

On March 26, of the present year, I was consulted at office by E. H. W., aged 54, farmer and miner. He had some symptoms of disseminated spinal sclerosis, though the sensory tract was principally affected, yet there was slight paresis of extensors of all the toes and paralysis of the great toes. The upper and lower extremities were about equally affected, though the affection was most marked on the left side.

With eyes closed he could barely distinguish a knife from a piece of money in the right hand, and could not tell one piece of money from another. With the left hand he could not even detect the contact of a knife or coin, or feel a lighted match until the skin was severely burned. He had slight ataxia, but his patella reflexes were normal or slightly exaggerated.

The first symptoms began last winter and consisted of pain, numbness and coldness of the extremities, difficulty in buttoning his clothes, liability of letting things fall from his hands, particularly from the left, frequent stumbling and frequent attacks of insomnia, and somnambulism. These symptoms increased until his sufferings were severe, and though he could walk about he had

become quite helpless and could neither dress nor feed himself. His appetite remained good and his general appearance was fairly natural, though he was losing flesh rapidly—his weight having fallen in four months from 210 to 140 pounds.

Prior to this attack his general health had been good, except that some three years ago he was troubled with dyspnea, caused by aortic insufficiency, for which I prescribed iodide of potassium. In the course of a few months the cardiac murmur and the dyspnea nearly disappeared.

I now prescribed small doses of strychnia before meals, and small doses of codia for pain and restlessness, and applied a stabile, galvanic current to hands and feet, 10 ma. ten minutes daily for a week, and since then three times a week. At each seance he was given both ascending and descending currents, beginning with a downward current, reversing twice each way, and ending with the current downward. On two occasions, once experimentally and once by accident, the seance was finished with the current ascending, and on the succeeding night he was unusually nervous and restless. On every other occasion of treatment the sitting was concluded as indicated, with a descending current. The

patient has steadily improved. There is now but little difference in the functions of the two hands, and with either one he can detect by feeling different pieces of money and can definitely locate a touch at any part of either foot, while formerly he could not, and at dorsum of left foot could not locate even a pin prick. He rarely suffers now from pain or coldness and has no abnormal sensations; can dress himself, sleeps better, walks much better, and is gaining strength and flesh, his weight having increased steadily at the rate of about two pounds per week.

Remarks: To further illustrate my view of the utility of galvanism in chronic forms of spinal disease, where the vessels of the cord, in consequence of degeneration, are becoming more and more incapable of performing their functions, I conceive that the electrical stimulus, acting through the vasomotor nerves, will, in the alternate use of the upward and downward current, not only fill and empty the vessels, and thus materially influence the nutrition of the cord, but incidentally by dilation and constriction restore the vessels themselves to their natural elasticity and use.

—Journal of Amer. Med. Assn.

Book Reviews.

A Study in Hypnotism, by Sydney Flower. The Psychic Publishing Co., 56 Fifth ave., Chicago.

The author of "Hypnotism Up to Date" has in this succeeding volume related in story form many truths concerning the attitude of the medical profession towards hypnotism. Suggestion has too frequently been

associated with the charlatan and the medical profession has given too little scientific investigation to it. There is too much belief of a mysterious animal magnetism or "will power" existing in the operator.

The book also contains a chapter on "Faith Healing" and "Christian Science." It would pay physicians to obtain a copy of this work.

Correspondence.

"THE DISGRACE OF MY OWN SIDE."

(A Reverie on the Hospital Matter in New York.)

"There is nothing a man feels so much as the disgrace of his own side."—Ian McLaren.

Nothing has come home to me so keenly as the knowledge that representative men of the colleges—those over whom my student life had cast a glamor—were capable of stooping so low as to become part and parcel with those who manipulated the notorious "college grab" and yet presented an appearance of respectability. I am not an idealist and realize, like most graduates, that much of what these theoretical men had taught me was crude and absurd when viewed by the light of practical experience. But only lately has the sincerity of the instructor been questioned—even though I discovered his teachings to be painfully inadequate outside the lecture room and at the battleground of the bedside.

It seems hard to doubt the honesty of a class of men, but let us look at the facts. The men who benefited by the reorganization claim that the action of the Commissioners of Charities was spontaneous. The Commissioners made wholesale removals of their own accord, without instigation. Inadequate service of medical attendants is hinted at; no charges were made. After upright and faithful men were ejected without a hearing; then the colleges were asked to fill vacancies.

Even accepting their own statement without exception, the faculties or their representative committees met and divided the birthright of their professional brethren, not even giving a mess of pottage in exchange. A case of Joseph and his brethren

reversed. In the one instance the brethren put Joseph in a well; in this, one hundred and twelve put three thousand in a hole.

The claim of non-instigation of Commissioners is refuted by the instigators. One said, "We wanted it; we worked for it, and we got it." Another remarked, "If the Commissioners were corrupt it was because I made them so."

There are five justifications advanced for the action of the colleges:

"1. Public welfare demanded the change.

"2. Bellevue has surpassed all hospitals in its magnificent showing under reorganization.

"3. Any other course would be contrary to the laws of New York State.

"4. The students need all the clinical material, and the profession requires none; because of difficult State examinations.

"5. The Commissioners did it anyway.?"

All five remind the medical man of Hamlet's reading—they are only "words, words, words."

Public welfare demands better practitioners, not better students.

The wonderful improvement in Bellevue is mythical. Statistics are of no value unless the number of dying patients, shipped to the city hospital, be truthfully given, in estimating the death rate. The laws of New York State nowhere countenance either conspiracy or monopoly. If the present holder of professorships cannot instruct the students sufficiently well to pass the State-examinations, let the professors say so boldly; come out like men; own their incompetency and resign, thus mak-

ing room for those of the profession who are better posted and qualified.

The excuse of students requiring more material is as mean, misleading and cowardly as the efforts to put the blame on the Commissioners' shoulders. The time of the student is so fully occupied by the college lectures that the present clinics cannot be attended. It is only when the reporters of the daily press write up some professor's remarkable surgery that the clinic room is ever crowded, and even then it is the morbid public and not the students who attend. The student is not caught by chaff, he is home studying for the evening quiz.

The average citizen is apt to believe that a "professor" is the great man, in his subject, and it should be so. But the professional man knows only too well that the talk of many professors in the medical societies is neither edifying nor instructive, and he knows, too, that the advances in medical science come as a rule

from workers and not from teachers. This is true of all professors. The professor in the theological seminary is very rarely a great preacher, or the professor in the law school a great pleader.

Yet, these teachers are my professional brethren. Some of them are the very men who day after day inculcated "code and ethics." They were the men who asked me for a certificate of good moral character, and yet evidence is before me that they have made it possible for a woman—not received into society—to promise a hospital position. Can the profession have returned to Charles the Second's time, when Nell Gwynne made and unmade professional men?

The Commissioners as yet only realize the justice of the question, but the frightful debasing iniquity of it all has never been opened to them. I could not do it—it was the disgrace of my own side.

VERITAS.

VACANCIES IN THE MEDICAL CORPS OF THE U. S. ARMY.

There are at present three vacancies in the Medical Corps of the United States Army, and it is expected that at least three more will occur during the present year. As usual, an Army Medical Board will meet in Washington early in October for the examination of candidates. The requirements for admission to the Medical Corps are stated in a circular issued by the Surgeon General of the army, dated May 21, 1896, and approved by the Secretary of War, as follows:

"Permission to appear before the Board is obtained by letter to the Secretary of War, which must be in the handwriting of the applicant, giving the date and place of his birth, and the place and State of which he is a permanent resident, and inclosing certificates, based on personal acquaintance, from at least two reputable persons as to his citizenship, character and habits. The candidate must be a citizen of the United

States, between twenty-two and twenty-nine years old, of sound health and good character, and a graduate of some regular medical college, in evidence of which his diploma will be submitted to the Board. The scope of the examination will include the morals, habits, physical and mental qualifications of the candidate, and his general aptitude for service; and the Board will report unfavorably should it have a reasonable doubt of his efficiency in any of these particulars.

"The physical examination comes first in order, and must be thorough. Candidates who fall below sixty-four inches in height will be rejected. Each candidate will also be required to certify 'that he labors under no mental or physical infirmity or disability which can interfere with the efficient discharge of any duty which may be required.' Errors of refraction, when not excessive, and not

accompanied by ocular disease and when correctible by appropriate glasses, are not causes for rejection.

"The mental examinations are conducted by both written and oral questions, upon:

"1. Elementary branches of a common school education, including arithmetic, the history and geography of the United States, physics, ancient and modern history, and general literature. Candidates claiming especial knowledge of the higher mathematics, ancient or modern languages, drawing, analytical chemistry or branches of natural science, will be examined in those subjects as accomplishments, and will receive due credit therefor, according to their proficiency.

"2. Professional branches, including anatomy, physiology, chemistry, hygiene, pathology and bacteriology, therapeutics and materia medica, surgery, practice of medicine, obstet-

rics and the diseases of women and children.

"Examinations will also be conducted at the bedside in clinical medicine and surgery, and operations and demonstrations will be made by the candidates upon the cadaver.

"Hospital training and practical experience in the practice of medicine, surgery and obstetrics are essential to candidates seeking admission to the Medical Corps of the army, who will be expected to present evidence that they have had at least one year's hospital experience or the equivalent of this in practice.

"To save unnecessary expense to candidates, those who desire it may have a preliminary physical examination and a mental examination in the 'elementary branches of a common school education' by a medical officer of the army, stationed most conveniently for this purpose, who will act under instructions from the Medical Examining Board."

Current Surgical Literature.

T. H. MANLEY, M. D., New York, Editor.

THE BLOOD IN MALARIA.

A telegram from India, received in London a few days ago, states that three important observations have just been reported by Dr. Lawrie, with reference to the microscopic examination of the blood in malaria: (1) One of his students, who has been getting fever every two or three months, has had his blood examined every day. Since the last attack up to yesterday Laveran's bodies were entirely absent from the blood. After yesterday's examination he had fever and ague, and to-day the blood contains them in abundance. (2) The characteristic swarming movements of Laveran's bodies, already detected by Dr. Lawrie in normal leucocytes, have now been found in asep-

tic pus cells, and these are known to be also leucocytes. These facts prove that Laveran's bodies are the effect, not the cause, of malaria, and establish their close relationship to the white blood cells. (3) Dr. Lawrie has shown that aseptic pus swarms with the same small cells and granules found in the liver and spleen of frogs, in normal leucocytes, and in Laveran's bodies, and these are not micrococci. Cocci have automatic movements, but the granules and small cells of aseptic pus have only the swarming movements seen in leucocytes and Laveran's bodies, which movements are produced by intra and extra-cellular circulation.

—London Med. Times.

EUCAINE HYDROCHLORATE.

From the Deutsche Medicinal Zeitung,
No. 34, April 27, '96.

Dr. Vinci has experimented with the preparation in the laboratory of Professor Liebreich, starting with the proposition that from its chemical composition it ought to show properties similar to those of cocaine. The new compound differs from cocaine in that a methyl group is substituted in it for a hydrogen atom which is formed by the action of ammonia upon acetone. The more convenient name of eucaine has been adopted in place of its chemical one of methyl-benzoyl-tetramethyl-gamma-oxypiperidine-carbonic acid methyl-ester.

Local action: A 2 to 5 per cent. solution of eucaine instilled into the eye of an animal, as a dog or rabbit, caused complete local anesthesia in from one to three minutes. It began in the cornea, and spread from thence to the conjunctiva, and lasted on an average from ten to twenty minutes. It was readily prolonged by repeating the dose. It was always accompanied by a slight hyperemia and slight irritation of the palpebral conjunctiva. This was only the case with the methyl alcohol form; the watery solution caused, at most, a very slight hyperemia. The pupil was not dilated, and reacted well to light. Injected under the skin eucaine caused complete anesthesia of the part so that the reflex could not be evoked even with a needle. A similar complete local anesthesia of the mucosa was affected when a eucaine solution was painted over it.

The general action of the drug, both in cold and warm-blooded animals, consisted in a marked excitation of the entire central nervous system, followed by paralysis in toxic doses, going on to death. Even 0.002 gram caused irritability, heightened reflexes, inco-ordination, and finally general paralysis in the animals experimented with. Small doses administered to mice and rabbits caused increased reflex excitability, and increased, but weakened, respiratory movements. Medium doses of 0.02 to 0.03 gram (1.3 to 1.2 grain) per kilo-

gram (35 ounces), caused repeated tonic and clonic convulsions. The animals lay senseless on their sides, with dyspnea, opisthotonos, and finally paresis of the posterior limbs. These phenomena were most marked when large toxic doses of 0.10 to 1.15 gram (1.1-2 to 2.1-4 grains) per kilogram (35 ounces) were administered; the convulsions returned continuously, and affected all the muscles of the body. The animals finally died when the paralysis reached the respiratory muscles.

When the dose was not a fatal one, the convulsions gradually ceased, the increased reflex excitability disappeared, and the paresis of the hind limbs slowly improved.

The effect of eucaine on the central nervous system is therefore at first excitant, and later, in toxic doses, paralyzing. The paralysis is a central one, for if the sciatic nerve of a frog poisoned with eucaine is exposed, and its peripheral end irritated with the induced current, the limb reacts in a normal manner.

As regards its action on the heart and the blood vessels, the subcutaneous and intravenous injection of small and medium doses slows it on the average from twenty to thirty beats per minute, but without otherwise modifying the beats or increasing the blood pressure. This effect on the pulse is caused by the excitation of the central vagus; for section of the vagi causes an immediate increase of the pulse to the normal and above it, together with an increase of the blood pressure. Death occurs from paralysis of the respiratory centres, for the heart continues to beat for some time thereafter.

In all these points eucaine is similar physiologically to cocaine. Yet there are some important differences, which must not be forgotten. In the first place, eucaine is less poisonous than cocaine. Whilst the animals treated with eucaine survived, control animals injected with the same doses of cocaine died. The pulse with eucaine is always decreased in frequency; with cocaine there is a primary acceleration. As regards their local action, the commencement

of the anesthesia, its duration and intensity, there is no difference between the two substances. But eucaine causes no ischemia; on the contrary, vascular dilatation occurs. A further difference is that the pupils are not affected; mydriasis does not occur, and the reaction to light remains normal.

The clinical experimentation was done in Professor Schweigger's Ophthalmological Department, of the University Clinic, at Berlin, and on all the various maladies of the eye; acute and chronic inflammation of the cornea and conjunctiva, dacryocystitis, operative procedures, removal of foreign bodies from the cornea, cauterizations, etc. Both preparations were employed in two per cent. solution and compared with similar cocaine applications. They showed that the two drugs were of like value in the human subject also, as regards the rapidity, duration and intensity of the anesthesia. This is complete, progresses from the cornea to the conjunctiva, appears from two to five minutes after the instillation, and lasts from ten to fifteen minutes. There is some hyperemia and a slight irritation of the palpebral conjunctivae. Some patients complained of a slight transitory burning, but only when the methyl alcohol preparation was used. The watery solution caused no by-effects save a slight, hardly noticeable hyperemia. It is, therefore, the solution to be preferred for practical use.

Another difference of great importance is that eucaine does not, like cocaine, induce mydriasis and paralysis of accommodation. The pupil is not distended at all and reacts well to light; the accommodation remains normal!

This is a property of the greatest importance in practical ophthalmology and favors the employment of eucaine in cases in which a production of ischemia with the anesthesia is not required. In violent inflammatory conditions of the eye, eucaine also promptly produces anesthesia, but the ischemic action fails, and consequently, for such cases, cocaine will have the preference. Both

drugs diminish the intra-ocular pressure about equally.

Its last advantage is that the eucaine solutions are permanent and do not, like those of cocaine, decompose when kept. Cocaine solutions are decomposed when they are boiled for the purpose of sterilization, thereby losing their property as a local anesthetic, and the decomposition products have an irritant effect if such a solution is employed. Solutions of eucaine, on the other hand, do not suffer decomposition, even when boiled for a long time.

Eucaine has thus been shown by experimentation on animals and on the human subject to have very marked local anesthetic properties, which render it worthy of being placed by the side of cocaine in ophthalmological practice. It has the advantage over the latter in that it has no effect on the pupil or on accommodation; that it is less poisonous than is cocaine; and that, whilst the absence of ischemic effects render it less suitable in certain cases, in others its slight hyperemic action will be distinctly advantageous.

REVULSIVE TREATMENT OF PNEUMONIA.

Branthomme (Rev. de Med., April, 1896) discusses the treatment of pneumonia by violent revulsions (abcès de fixation), and relates two cases of severe adynamic pneumonia, in one of which life was prolonged and in the other apparently saved by the subcutaneous injection of turpentine into the limbs. He mentions also a case of puerperal peritonitis in which this revulsive treatment appeared to have averted death. The injections in all the cases were followed by extensive phlegmonous inflammation of the parts. As to the mode of action, he points out that the method is of value in pneumonia when in the suppurative stage, and that this suppuration is due to secondary infection of the lungs by microbes other than the pneumococcus. The phlegmonous inflammation excited by the injections produces diapidesis and leucocytosis, which may

increase the bactericidal power of the blood, or the productions of toxins at the seat of injection may tend to produce immunity. The real lesson to be deduced, he concludes, is that in such cases resort should be had to serotherapeutics.

—B. M. J.

TREATMENT OF CERTAIN TUMORS OF THE MOUTH BY CHLORIDE OF POTASSIUM.

Dumontpallier (Bull. de l'Acad. de Med., March 10) reports three cases of tumor of the gums and tongue in which, since 1893, he has used chlorate of potassium with considerable success. (1) A man aged 68, with a tumor as thick as the forefinger, and interfering seriously with mastication, situated behind the lower incisors, and extending into the floor of the mouth. The health was good and there was no glandular enlargement. Having ascertained that neither albuminuria nor glycosuria was present, the author prescribed four grammes of chlorate of potassium in 120 grammes of distilled water to be taken daily, and "strong does" of the same drug in fine powder to be applied four times a day over the tumor. In a week the growth had appreciably diminished in size and was softer. There was no renal irritation for the elimination of the drug. The treatment was continued for a month; the doses were progressively diminished from week to week. In three months the tumor had completely disappeared. The cure has lasted till now (two years). The author, while not affirming positively that the tumor was an epithelioma, says it had all the appearance of it. In any case surgical intervention would soon have been necessary owing to the hindrance to mastication, and this was obviated by the treatment. (2) A man aged 52, with a recurrent epithelioma of the tongue, which was growing rapidly. Chloride of potassium was given internally and applied locally as in Case 1, but in larger doses. The treatment was continued for six weeks, the tumor steadily diminish-

ing, and finally disappearing. The patient was shown to the member of the Academy eleven months later, and there was then no trace of the tumor. (3) A man aged 49, with a large ulcer of the tongue, which had proved refractory to anti-syphilitic treatment. The author, while admitting that it may be tuberculous, is inclined to think it was malignant. The chlorate of potassium treatment caused an immediate improvement, and when shown to the Academy three months later it was almost cured. Dumontpallier therefore recommends that in tumors of doubtful nature this treatment should be tried for two or three months in daily doses of 4 to 6 g. (drachms j to drachms jss) before recourse is had to the knife. It is essential that the kidneys should be in good working order. Reclus said that during a period of ten years he had very often used chlorate of potassium in every way and in various forms of cancer, and he had been forced to the conclusion previously come to by Bergeron, Fereol, and P. Broca, namely, that the drug was of use only in canceroids of the skin, and was utterly ineffectual in cancers of the mucous membrane, particularly in epithelioma of the mouth. He pointed out that in none of the cases related by Dumontpallier had there been any microscopic examination, and in all of them the diagnosis was further open to doubt from the purely clinical standpoint. Dumontpallier, in reply, pointed out that Reclus had, on his own showing, used the chlorate of potassium only for three weeks instead of two or three months.

—B. M. J.

EXTRACT OF OVARY.

Mond (Munch. med. Woch., April 7, 1896) has used this substance in the treatment of cases where symptoms were due to amenorrhea, arising spontaneously or artificially, induced by operation. The extract was obtained from the whole ovary, or by precipitating the contents of the follicles. No definite conclusions as regards results can yet be made. The cases for which the treatment was

adopted were those in which the internal generative organs had been removed either partially or entirely, and in cases in which the symptoms were due to the climateric, in amenorrhea due to atrophy of the generative organs, and in one case of rudimentary uterus, etc. The author sets forth the cases and the results obtained in tabular form. These results encourage him to proceed with the treatment, and he hopes that his preliminary communication may induce others to try it.

—B. M. J.

CHLOROSIS AS AN INFECTIOUS DISEASE.

I observed an epidemic form of chlorosis in a small village, in which 8 young girls under favorable hygienic conditions were successively affected, fever being the initial symptom. Enlargement of the spleen was constant — phlegmasia alba, dry pericarditis and pleurisy being frequent complications. These could hardly be explained by a simple disturbance of the hematopoietic function.

—Clement, in *Centralblatt für Gynäkologie*.

Russian and German

Translated by DR. A. D. DAVIDOW.

THE SUGAR DISORGANIZING FORCE OF BLOOD AND TISSUE.

Spitze-Berlin Woch.

Author supports the criticisms of Lepine's diabetic theory, especially two of its assertions. 1. That the blood outside the body will destroy added grape sugar. 2. That diabetic blood has a greater destructive power than normal. What concerns the first assertion is confirmed by author, as well as by Kraus, that grape sugar with blood oxidises to carbonic acid and water. The second assertion, however, could not be supported. The blood of five diabetic patients, as well as the prepared sodium-chloride extract of Lepine's, has disintegrated grape sugar as much as normal. S. points out that Lepine's assumption, from results of his own, are inconclusive, the disintegration of sugar appears to be lower in diabetic blood, while Lepine bases the sugar disintegration on the percentage of sugar in the blood. Since the quantity of sugar is diabetic blood, is considerably higher than in normal, is hence evident that the disintegration of sugar will be lighter. Lepine's observations proceed from the complied suppositions that the stronger the glycolyse the

richer is the sugar in the blood. This assumption, however, as illustrated by the author's experiments is incorrect. And, moreover, the quantity of sugar forming ferments in diabetic blood is found not to be greater than in the normal, as author shows by four experiments with non-diabetic, and three with diabetic blood serum. Furthermore, author found that the power of glycolyse is not at all depending on the blood. The watery extract of alcoholic-coagula of blood, lymphatic gland, thymus, pancreas, liver, pus, as well as three years old dry extract of mucous membrane of muscle and liver can be shown to have the disintegrating force of sugar. And so the author comes to conclusions that the disintegrating force of grape sugar to be the general property of protoplasm and is not depending on the life of the cells. On the other hand, it is depending on the presence of oxygen being displaced by carbonic acid, glycolysis will not set in.

THE AMERICAN PRESS.

The voice of the American and Continental press penetrated even the Monarchical Russia. For the coming International Congress, the

English language is now recognized on equality with the French, German and Russian. Professor F. F. Erisman, of the executive committee, in a letter to the press, states: "We acted so, for the reason, that excluding the English language would dissatisfy our English friends, and the committee has no right to insist on the decision first issued, since the general opinion of the English physicians is evidently in opposition to it." The professor assures us that the committee in its first decision guided itself with the wants of the congress, not having in view any national or political consideration.

Apropos of national consideration, how will the law relating to the foreign Jew in Russia affect the Jewish physician who is to go to the congress. The law strictly prohibits a foreign Jew to remain in Moscow longer than twenty-four hours.

TO THE STUDY OF PERIOSTITIS IN TYPHOID FEVER.

W. Wisskovich Wratch, 1895-15.16.

Post typhoid affections of the periosteum may be brought on by the typhus bacillus or the staphylococcus pyogenus aureum. If due to the first, it is of short duration and recovery follows upon opening of the centre of pus formation. Periosteal inflammation, brought on by the staphylococcus, is rather of long duration, frequently associating with necrosis of the bone. Physician, 36, recovered from an attack of typhoid fever. Five weeks after the initiation of the disease a painful swelling appeared on the lower third of the arm, behind the triceps muscle. An incision was made, but with no result. In a few days the swelling emptied itself spontaneously of pus at the place of incision. After three and a half months pus broke out again on the same spot; after nine months the same. This repeated itself, after various intervals, six times in four years. Between the times patient felt well, had no temperature, the form of the bone was not changed—only some superficial necrosis. In the pus was found some pus corpuscles, thin rods, one on the

other, the length of a r. b. c. Culture inoculations gave negative results. The bacteria mostly resembled the pseudo-typhoid, described by Klebs, which were found under the scar of the typhoid ulcer. It is usually found that even in insignificant trauma, colonization of bacteria will find a favorable soil to strife. In another case, author observed, in a man of 50, after a recurrent typhoid, likewise a periostitis. In the pus was found heavy rods, with rounded-off ends. Along with the periostitis existed a pyetitis, which probably had some connection with the periostitis.

CITRIC ACID—A REMEDY AGAINST GONORRHEA.

Pellissier in Cen. Bl. f. Schweizer Aer-

It is claimed by the author that citric acid is effective even in obstinate cases of gonorrhea. The effect of the acid is not due to its bacteriocidal action, but principally makes an unfavorable soil for further development of micro-organisms. In anterior urethritis, the acid is used as an injection or wash. As an injection one per cent. solution is used and the injections to be made six times a day. Eight grains to 1-1.5 litter of water is used for washing, to be made daily. Non-complicated cases of gonorrhea should be cured after four or five washings. In posterior urethistia the same solution is injected into the bladder and emptied by the normal process; 400 c. c. should be injected at once and then repeated until 1.5l. is used.

Vion, in the Therop. Monotach, recommends against gingivitis of smokers washing out the mouth with a coffeespoon of the following mixture in a half a glass of warm water:

R. Saloli	1.0
Sp. Menth. pep.	100.0
Tr. Catechu	4.0
MS.: S. External.	

A section of alcoholism has been created for the Twelfth International Congress at Moscow.

—Wratch.

German and Italian

Translated by DR. F. E. CHANDLER.

SIMULTANEOUS LIGATURE OF THE TWO EXTERNAL CAROTIDS AND SUBSEQUENT LIGATURE OF THE LEFT COMMON CAROTID FOR CIRROID OMENISM.

Prof. V. Chalot, of Toulouse, reports a case of this kind. The patient was a man 56 years of age, tall, thin and pale; by trade a tailor, living in Tournefeuille, near Toulouse.

He was brought to the hospital by ambulance on the 2d of August. He had had three severe hemorrhages from a vascular tumor that covered the left side of his face. The tumor had commenced as a little rose-colored spot on the left upper lid.

Twenty years previously there had been a first hemorrhage that ceased spontaneously; from then until the present he had averaged one hemorrhage every six months. Since two years the tumor has enormously augmented in volume and in November, 1891, the left eye was entirely closed by development of the lids. In May, 1892 the patient was forced to quit work.

On his admission to the hospital he complained of noises, faintness, etc., caused by the loss of blood. The tumor was oblong, with a vertical diameter of 15 cm. by 10 to 11 cm. broad, pulsation plainly visible on the entire surface; it occupied the two left lids extending upwards above the left frontal eminence, downwards to a point on a level with the alae nasi, to the right as far as the root of the nose and left nearly to the ear. It was covered by the skin, violet-red in color, very thin and ulcerated and suppurated in spots. The movements of expansion and the pulsations visible gave the tumor the aspect of a mass of earth-worms, interlaced and in motion. Its consistence was soft and pasty like an enormous varicocele.

Palpation showed an intense vibratory thrill over the whole tumor.

Auscultation gave very violent bruit and souffle, with systolic reinforcement.

Diagnosis: Cirroid aneurism, the central point of which corresponded to the base of the orbit, that is to say to the union of the internal and external carotid systems of the left side.

To reduce the size of the tumor as well as to anticipate fresh hemorrhages, I ligatured the two external carotids with silk. This operation did not require half an hour. Pulsation in the tumor ceased immediately and size diminished, while the skin covering it became paler.

No hemorrhage since the double ligature of the external carotids. *Sequelae excellent.*

On February 16, 1893, very weak pulsations reappeared on the central and upper portion of the tumor; this was evidently caused by the anastomosis of the left ophthalmic artery. I now ligatured the left common carotid, still using silk, and the operation was followed by absolutely no cerebral symptoms.

I ligatured, at the same time, two or three feebly pulsating arteries above the right eye brow.

To-day, three years after ligature of the common carotid, the left orbito palpebral region is still covered by an edematous mass, which covers the globe of the eye entirely, so that from an esthetic or functional point of view we have gained but little, but this mass is reduced in size to 5 cm. in height by 4 cm. in breadth. Nowhere is there the least pulsation, vibration or souffle.

To sum up: The primitive cirroid aneurism has not completely disappeared as a tumor, but it is reduced two-thirds in size and has lost all its arterial character, so that the patient has no more spontaneous hem-

orrhages, no more pain and can gain his livelihood as well as formerly. He wears a shield over the tumor. There is now nothing to prevent, whenever the patient desires it, our attempting to complete his cure by first opening the external commissure of the lids; if the eye is intact, we need only to excise an elliptic piece from the upper lid in order to uncover it.

—Independence Medicale.

A PLANTAIN SPROUTING IN THE EAR.

Last autumn a little girl, of seven years, Amelie L., whose father was employed in a great sawmill, at Bellegarde-Coupy (Ain), put some plantain seeds into her ears. From then until recently the little girl was not troubled; a few days since, she had a violent earache and was obliged to keep to her room. In the interior of the ear, in front of the drum, a mass of cerum had formed, and a seed had taken root.

The parents were not a little surprised to see a vegetation, that although not luxuriant, nevertheless was most uncommon in the locality where it was found. The father removed the young sprout, using the utmost care, and the child had no more trouble.

—Independence Medicale.

CONTRACTION OF THE FLEXORS OF THE HAND CURED BY SHORTENING THE BONES OF THE FOREARM.

Contraction is caused by muscles which are too short in proportion to the distance between their points of insertion. Professor Henle, of Breslau, says that there are two ways of getting rid of this disproportion; either by lengthening the muscles or by shortening the bones. If the first operation is not successful, then try the second; the muscles that are not contracted will easily accommodate themselves to the shape of the bones unless the latter be excessively shortened.

Author operated upon a boy nine years of age, who had broken his

forearm. The fracture united well in a plaster bandage, but the fingers and wrist remained contracted in flexion. If the fingers are bent the wrist can be extended, and if the wrist be bent, the fingers may be freely moved.

After chloroform narcosis, author opened the arm over the point of fracture, and resected two cm. of both bones. Movement of the wrist was possible with extended fingers. The bones were then sutured.

A photograph taken three weeks later with Roentgen's apparatus showed an opening filled with callus. Massage was used. Five weeks later consolidation was nearly complete. Later the fingers move freely and the wrist nearly so.

—Centralblatt f. Chirurgie.

THREE SISTERS WITH VITILIGO.

The cause of the various cutaneous achromes and hyperchromes is not known. Professor Leloir found an alteration in the nerves in the discolored portions of the skin in vitiligo and a nervous origin was claimed as the principal cause of this dyschroma. Author had seen three cases of vitiligo in one family, two brothers and one sister. One of the brothers noticed, at the age of 26, that the skin of his face was bleaching in spots of various shapes and sizes, which gradually coalesced, and, in about two years' time, covered the entire face. Next one-half of his moustache turned white; this was soon the case with the other side. The upper edge of the forehead and scalp turned next; then came a portion of his hair, until finally, in a few years, the entire cephalic portion of the patient became white.

Some time afterwards, I was called to see the sister of this young man. She had blotches of vitiligo on the neck, shoulders and armpits and the axillary hair had whitened. Another brother had only a few spots of vitiligo. It seems, therefore, that we must admit that vitiligo sometimes runs in families, since in author's cases he has been able to prove neither neuropathy nor

heredity, but in some cases we must admit a heredity.

In this last category come the three negro sisters, aged 17, 18 and 19 years, who were to be seen in Costan's Panopticum, in Berlin. They are well developed, of a high brown color and covered with white blotches, spread over the entire body, with predominance on the upper and lower limbs. The spots are a white, resembling the skins of the Caucasian races of the North. The forehead and chin show white blotches; besides this, there is a great braid of white hair, extending from the forehead to the occiput; the eyebrows and lashes are also white. The sisters are from Central Africa, and it appears that their parents were marked the same way. It seems to author that there can be no question of albinism here, because their eyes are not in the least discolored, but that it is only a rare case of extensive vitiligo.

—Presa. Med. Romana.

CLINICAL OBSERVATIONS ON THE ACTION OF ETHER AND CHLOROFORM ON THE KIDNEYS.

Drs. F. Babacci and G. Bebi studied the kidneys of persons dying under anesthesia. To complete their researches, they tried experiments upon animals. In ether narcosis there was albuminuria in twenty-nine per cent. of the cases; chloroform produced nineteen per cent. The animals etherized presented renal changes, consisting in diffuse hemorrhagic nephritis, with preponderant glomerulitis and multiple hemorrhages. This form of nephritis, due to ether, tends to get well spontaneously. In animals who had been under chloroform there was parenchymatous nephritis, with tendency to chronicity.

Authors conclude that ether is preferable to chloroform as an anesthetic.

—Il Policlinico.

Current Medical Literature.

CANCER IN VATER'S AMPULLA.

By M. Render.

A young man of former good health, without any appreciable cause, was seized with three attacks of icterus. In the last attack the jaundice was attended with fever, painful abdominal distension, free diarrhea and intestinal hemorrhage, during which he succumbed.

At the autopsy a cylindrical epithelioma was found occupying the ampulla of Vater, besides a suppurating undergrowth and abscess of the liver. The pancreas was not involved. The author calls attention to two points in this case, inasmuch as they bear on the differential diagnosis or and distinguishing clinical features of cancer of Vater's ampulla

and thus involving the intestines. These are the alternate amelioration and relapses in the first onset of the former malady and persistent diarrhea towards its close.

Their onset is always insidious. There is an undeveloped form of jaundice, accompanied with a type of gastric embarrassment quite impossible to distinguish from common, dyspeptic catarrh, without any sensible alteration of the general health; then, after a time, when these symptoms abate without any provocation, fresh symptoms of biliary obstruction are evident and repeated. It is easy to comprehend the mechanism of intermittent icterus, which a priori is imputable to a calculus in the bile duct. The plaque of epithelioma

which seizes on Vater's ampulla does not completely obstruct the cholangio-duct. Hence, this contracts or expands, according as to whether the neoplasm is engorged or not. The growth is slow in advancing, and is entirely without pain; as is also the obliteration of the gall duct. When we have cancer of the head of the pancreas, it does not necessarily give rise to jaundice until far advanced, although, now, when this appears, it is constant and progressive. The intermittency then, of jaundice points to its hepatic origin, while its persistence implies its pancreatic source, the latter being always attended with a general wasting, and signs of widespread deterioration of the organism.

The presence of diarrhea is a sign of great value, as it implies a disordered digestion, through an arrest of both the bilious and pancreatic secretions.

Whenever we have cancer of the intestines we will have diarrhea. When we have permanent obstruction of the common bile duct, constipation is the rule. In a grave type of icterus we may have intestinal bleeding without diarrhea. When it is repeated in the intervals of icterus we have good reasons to suspect cancer of Vater's ampulla.

DESCENT OF THE BLADDER IN CRURAL HERNIA.

—By M. Froelichs.

The attention of surgeons has, of late years, been called to the occasional descent of the walls of the bladder in the strangulated or incarcerated crural hernia, when during operation the danger of wounding it then is very great. The works of Guelliot, Lejurs, Gulpin, Berger and J. Borkel record a great number of cases of cystocele as an associate factor in various types of hernia. Vessical extrusion is rare in femoral hernia.

I have met with but one, in the service of M. Heydenreich, in a strangulated femoral hernia. The patient was a female, 34 years old, who had hernia for four years. It now was

strangulated. The protrusion was the size of a hen's egg. A knuckle of intestine was found in the sac deeply congested. The point of strangulation was immediately divided. After the bowel was returned, I found a soft mass, about the size of the first joint of the thumb, lying inside the canal, with a tendency to descent. In order to make a radical cure, the sac was isolated and the mass brought down. It was composed of fat on the outside, though, as this was displaced, smooth muscle tissue came into view, in the shape of a cyst, about the volume of a nut.

In the process of decorticating the sac, this was accidentally torn open, when the nude mucous membrane of the bladder came into view. This rent was closed with several fine silk sutures, when it was brought into close contact with the parietal peritoneum and fixed in position. A drainage-tube was left in the wound and a catheter passed into the bladder. Recovery was uninterrupted.

This makes only the sixth case on record. But inguinal hernia is not uncommonly complicated by cystocele. And it is a complication for the operator to always bear in mind. It has no special symptomatology and may, if overlooked, tend to serious results after hernial operations. In St. Anthony's a distinguished surgeon proceeded to operate for inguinal hernia. He found a duplex sac covered by peritoneum, holding no fluid. This was opened. The patient died. On autopsy, it was found that the inner sac was the bladder wall. The ligature on this had slipped, allowing of a fatal urinary extravasation.

The mechanism of these cases is not clear in all cases, although in the majority it is probable that the bladder is carried out through the canal with the primitive serous investments from above, not giving rise to symptoms until after adult years.

Froelich emphasizes the difficulties in these cases, in the way of accurate diagnosis, repeating the absence

of any definite sign before operation; and the fact, that in most cases, even on exposure under the scalpel, the displaced bladder wall may be extremely difficult of detection. And bladder wounds in these cases are always a source of great danger from peritonitis after the hernia is treated.

—Gaz. Heb. Jendi, 2 April, '96.

(Note by Translator.)

One who has had an extensive experience in operative hernia can hardly commit such a blunder as to open the bladder deliberately in the course of operation; but with the hasty or inexperienced, it is very liable to happen. The books are laden with points for the amateur obstetrician on the signs of position, etc., of the descending fetus, but everyone knows that practically they count for nothing. The same may be said of operative hernia, for in many when the tissues are laid open the neophyte is perfectly bewildered

with the complex arrangement, which he is wholly unprepared for.

Vessical extrusion is by no means an uncommon complication in male hernia, much more so that our author implies. In large, incarcerated ruptures, it is not infrequent, and it has quite definite symptoms, too. Among those are vessical tensesures, polyuria and tenderness, continuous from the bladder, down the inguinal plane; and the relief of all symptoms on reduction in volume, by rest.

The anatomical arrangement presents definite characters. The bladder is never in the sac, but outside. When wounded in a hernial operation, if caution in suturing be observed, and the rent be placed outside the peritoneum, the dangers of septic inflammation will be vastly reduced. But let it always be remembered that vessical wounds under any circumstances are full of peril, if not skillfully and promptly closed under rigorous aseptis.

—T. H. M.



AUNT MARTHA:

A Medico-Psychological Ballad.

Aunt Martha is a maiden some sixty
years old,
Who poses as high-toned and
haughty—
Did I say she was sixty? Well, that
is a fact;
Though she owns up to just one
and forty.
Aunt Martha is one who enjoys quite
poor health,
(As many may do when they're
wealthy),
And will talk of her woes half a day
at a stretch,
While she looks most alarmingly
healthy.
Aunt Martha's a blessing to all whom
she meets
(At least, she once tried to tell me
it);

But, aside from the doctors and drug-
gists she needs
The rest will be "blessed" if they
see it.
When she walks, there's a bit of an
earthquake broke loose,
As up and downstairs she will
toddle;
Did I just speak of walking? That's
quite a mistake;
It isn't a walk; it's a waddle.
Aunt Martha is sometimes rheu-
matic, you know
(Though her tongue shows no signs
yet of sinking);
It's that form of "rheumatics" so
often derived
From too much good eating and—
thinking.

Aunt Martha's "auld reekie" himself
 in disguise,
 When she can't do whatever she
 pleases;
 And her smile could be used in a
 creamery then,
 To curdle the milk for the cheeses.
 Aunt Martha's digestion is sadly im-
 paired;
 But she finds much relief in red
 pepper,
 Which is homeopathic for temper
 and nose,
 Though the former don't get any
 better.
 Aunt Martha has doctors by dozens
 and scores,
 And has tried all the pharmacopea.
 Till she knows it far better than any
 M. D.,
 And tells them so, too, when they
 see her.
 Aunt Martha keeps busy with other
 folks' "biz,"
 And her "she said" and "he said"
 make you sick,
 As she reels off to strangers she
 chances to meet
 All they'll hear of her bilious "chin
 music."

Aunt Martha must diet to keep down
 her weight,
 (Which is only two hundred and
 thirty).
 The hyperidrosis caused by such
 hard work
 Makes her smell most uncommon-
 ly dirty.
 She is very dyspeptic (the flatulent
 kind),
 And really, there's no means of
 knowing
 When her food gets uneasy and will
 not digest,
 Which way that the gas intends
 going.
 Should you care for her "photo" your
 album to grace,
 She will send you one if you're
 not churlish,
 The last she had taken (just thirty
 years back),
 And she looks just too sweet and
 too girlish.
 Should the time ever come when
 Aunt Martha must go,
 We will draw a long breath and
 will waft a
 Farewell to her "wheels" and her
 woes, till we meet
 Again in the blessed hereafter.
 —T. Ingoldsby, M. D.

Therapeutical Progress.

BRIEF NOTES ON NEW AND RARE REMEDIES.

From the American Druggist.

SOZOIODOL.—Applied pure or in
 10 per cent. powder in eczema, etc.

SOZOIODOL-MERCURY. (Mercury
 di-iodopara-phenol sulphonate).—
 Yellow powder containing 31 per
 cent. of mercury and 38 per cent.
 of iodine; insoluble in water, solu-
 ble in salt water. Antiparasitic,
 anti-syphilitic. Applied in 2 to 10
 per cent. ointment or powder.
 Dose, hypodermically 1-4 grains
 dissolved in solution of potassium
 iodide.

SOZOIODOL-POTASSIUM.—Odorless

white powder, soluble in 50 water.
 Antiseptic.

SOZOIODOL-SODIUM.—This should
 be dispensed when simply sozoiodol
 is ordered. White odorless crys-
 tals, soluble in 14 water. Antisep-
 tic, parasiticide. Applied in 1 to
 10 per cent. ointment or solution.
 Dose internally, 15 to 45 grs. daily.

SOZOIODOL-ZINC.—White, odorless
 powder, soluble in 20 water, A.
 Astringent, antiseptic. (Catarrh,
 gonorrhea, leucorrhea, etc.). Ap-
 plied in 5 to 10 per cent. dusting

powder, or as injection in 1 to 5 per cent. solution.

SPARTEINE SULPHATE.—Salt of an alkaloid from *scopraius*, colorless, bitter hygroscopic crystals, soluble in water, cardiac tonic resembling digitalin in action. Dose, 3-4 to 11-2 grs. daily in divided doses.

SPERMINE.—A base obtained from the seminal fluid of various animals. Crystalline hygroscopic body soluble in water, A, insoluble in E.

SPERMINE SOLUTION, Poehl, 2 per cent. solution of the hydrochlorate. Nervous tonic. (Neurasthenia, locomotor ataxy, asthma, etc.). Dose 3 to 10 mins.

SPASMOTOXINE. (Spacelotoxine).—Amorphous yellow insoluble principle from ergot, forming salts with alkalis. Oxytoxic and arterial contractor. Dose, from 1-2 to 1 gr.

STERESOL.—An antiseptic varnish, compound of tolu, gums, phenol, alcohol, etc. Antiseptic adhesive dressing.

STRONTIUM SALTS.—These salts have been recommended as preferable to the corresponding salts of sodium or potassium for the same diseases on the ground of being better borne by the system.

STRONTIUM BROMIDE.—Colorless soluble needles. Dose, 30 to 60 grs.

STROPHANTHIN.—Glucoside from *strophanthus*. White amorphous or crystalline powder, soluble in water, A. Non-cummulative heart tonic, not disturbing the respiratory centres. Dose, 1-60 to 1-30 gr.

STRYCHNINE, A R S E N A T E.—White, crystalline powder with bitter taste. Tonic and diuretic in phthisis. Dose, 8 to 15 drops of a half per cent. solution.

STRACOL. (Cinnamyl guaiacol).—Long needles. Internal antiseptic. (Vesical, catarrh, gonorrhea, etc., also in phthisis.)

SULPHAMINOL. (Thio-oxy-diphenylamine).—Pale yellow, odorless, and tasteless powder. Soluble in alkaline solutions, insoluble in water, soluble in A. Antiseptic. Substitute for iodoform. Non-poisonous.

Dose, 3 to 5 grs.; three times a day.
SYMPHORAL. (Caffeine sulphonate nasrol).—Symphorol-N. — Sodium salt-L.—lithium salt-S—strontium salt. They are all odorless, bitter, microcrystalline powders, soluble in W., insoluble in A., E., C. Diuretic, not affecting the nervous system. Dose, 15 grs. four times a day.

TANNAL. (Basic aluminum tannate).—Brownish yellow, insoluble powder. Astringent. (Chronic catarrh, etc.). By treatment with tartaric acid a soluble tannal is produced.

TANNIGEN. (Diacetyl-acetal).—Yellowish gray, tasteless, odorless, slightly hygroscopic powder. Insoluble in water and dilute acids, soluble in A. And in cold solutions of alkaliphosphates. Intestinal astringent passing the stomach undecomposed. (Chronic diarrhea.)

TERPINOL.—Oleaginous substance with hyacinth-like color. Insoluble in water, soluble in A. Bronchial stimulant. Dose, 8 to 15 grs.

TERPINEOL.—A thick, colorless liquid with hyacinth-like odor; present in terpinol. Recommended as a deodorant for iodoform.

TETANUS ANTITOXIN.—Resembling diphtheria antitoxin in physical properties. Specific in tetanus.

TETRAETHYLAMMONIUM HYDROXIDE.—10 per cent. solution. Clear, bitter alkaline, caustic liquid. Uric acid solvent. (Gout, rheumatism, etc.). Dose, 8 to 20 minims, well diluted, three times a day. Hypodermically 1 to 2 minims 4 or 5 times a day.

TETRONAL. (Diethyl-sulphon-diethyl-methane).—Lustrous tabular crystals of a camphoraceous bitter taste. Soluble in 450 water, readily soluble in A. Hypnotic like trionol, but less powerful.

THALLINE SULPHATE. (Tetra-hydro-para-china-isol sulphate).—Yellowish, white, crystalline powder with an odor like cumarin and a saline, bitter, spicy taste. Soluble in A., very soluble in water, the aqueous solution being darkened on exposure to light. Antipyretic, antiseptic. (Gonorrhea, etc.). Reputed as poisonous for the red

- blood corpuscles and the nervous system. Dose, 2 to 8 grs.
- THERMODIN.** (Acetyl-para-ethoxy-phenyl-urethane).—Colorless, odorless, almost insoluble crystals. Antipyretic. Dose, 8 to 10 grs., two or three times daily.
- THILANIN.** (Sulphurated lanolin).—Contains 3 per cent. of sulphur. External antiseptic (eczema, pruritus, etc.).
- THIOFORM.** (Basic bismuth dithio-salicylate).—Voluminous, insoluble, yellowish, odorless powder. Non-poisonous substitute for iodoform. Dose, 5 grs. 3 times daily.
- THIOL** liquid is a thin, brownish-black neutral extract with a faint odor of birch oil. Miscible with water, partly so with alcohol. Dermal antiseptic. Substitute for ichthyol. Dose, 11-2 grs. in pill. Externally as powder (the dry) or in 5 to 15 per cent. liniment, etc.
- THEIOPHENE.**—The sodium salt and the dioxide are antiseptics like iodoform.
- THIO-RESORCIN.**—Yellowish gray tasteless insoluble powder. Substitute for iodoform.
- THIOSAPOLS.**—Soaps made from oils previously treated with sulphur. Employed in dermatology.
- THIOSINAMINE.** (Rhodallin, allyl Sulpho-urea).—Colorless or yellowish crystals, soluble in water, A., E. Reducing agent and antiseptic in lupus, etc. Causes softening of cicatricial tissue, absorbing of glandular swelling.
- THYROIDIN.**—Extract of thymus gland of sheep; remedy for myxedema.
- THYMACEIN.**—White crystalline powder, difficulty soluble in water. Hypnotic. Dose, 5 to 45 grs.
- TILYPYRIN.**—Colorless crystals, soluble in water and A. Antipyretic, antirheumatic, antineuralgic, like antipyrine.
- TOLYSAL.** (Tolpyrine salicylate).—Colorless crystals almost insoluble in water and A. Antirheumatic. Dose, 15 to 90 grs.
- TRIKRESOL.**—Clear, colorless liquid of phenol-like odor, and turning yellow on exposure. Disinfectant, being three times as powerful a disinfectant as carbolic acid. Applied in 1-2 to 1 per cent. solution.
- TRIKRESOLAMINE.**—A 4 per cent. solution of an equal mixture of ethylene, diamine and trikresol. Antiseptic like trikresol, but less irritating. Applied in 1-5 to 1 per cent. solution.
- TRIONAL.** (Diethyl-sulphon methyl ethylmethane).—Lustrous, bitter, tabular crystals, soluble in 320 water, readily in A. E. Hypnotic, resembling sulphonol, with less evil after-effects. Dose, 15 to 45 grs.
- TROPACOCAINE HYDROCHLORATE.**—Salt of alkaloid from Javanese coca, also prepared synthetically. Local anesthetic more rapid and stronger than cocaine. Applied in 3 per cent. solution.
- TUBERCULIN KOCH.**—A transparent, yellowish liquid. Used principally to diagnose tuberculosis in cattle.
- TUMENOL.**—A mixture of sulphonic acids and sulphones. Antiseptic (eczema, itching, wounds, etc.). Applied in 2 to 5 per cent. solution or dusting powder.
- TUSSOL.**—A compound of phenyl glycollic acid and with antipyrine. Analgesic antispasmodic. In whooping cough.
- URALIUM.** (Chloral-urethane).—Colorless crystals soluble in A., E., insoluble in cold water, decomposed by hot water. Hypnotic, better form than chloral.
- URETHANE.** (Ethyl-urethane, ethyl Carbonate).—Colorless, odorless, crystals, readily soluble in water, A., E. Hypnotic, sedative, antispasmodic. Dose, 30 to 45 grs. 3 times daily.
- UROPHERIN.** (Lithium diuretin).—Same as diuretin except that lithium is substituted for sodium. White powder, soluble in water. Diuretic. Dose, 15 grs. 3 to 4 times daily.
- VASELON.**—Solution of stearon and margaron in neutral mineral oil. Ointment base.
- VASOGEN.**—Oxygenated petrolatum. Sulphophated mineral oil miscible with water. Absorbent vehicle.

(The End.)



INDEX

TO

....Volume XXXI....

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List of Contributors of Original Articles to Volume XXXI.

Berry, Dr. V., Cincinnati. Extra-uterine Pregnancy	368
Brown, Dr. W. S., Stoneham, Mass. The Hippocratic Oath.....	445
Clausen, Dr. J. R., Philadelphia, Pa. Duty Line in Medical Journalism.....	365
Draper, Dr. F. W., Boston, Mass. Illuminating Gas as a Poison.....	201
Drews, Dr. R., Hamburg, Ger. Treatment of Nervous Influenza....	161
Dunham, Dr. W. R., Keene, N. H. Scarlet Fever.....	485
Edes, Dr. R. T., Boston, Mass. Anemia and Blood Measurements....	285
Eldridge, Dr. C. S., Philadelphia, Pa. Uses of Phenacetin-Bayer	253
Ferguson, Dr. F. U., Gallitzin, Pa. Hydatidform Mole	410
Fox, Dr. L. W., Philadelphia, Pa. An Address	450
Harris, Dr. M. L., Chicago, Ill. Undescended Ovary and Sacto-Sal- pinx	121
Hogner, Dr. R., Boston. Cellulitis Complicating Gynecological Dis- eases	325
Lewis, Dr. Louis, Philadelphia, Pa. Embarrassed Respiration	81
Manley, Dr. T. H., New York city. A Practical Study of the Blood and Circulation—Frigostasis	248, 290
Leucocytosis in Nutritative Processes	124
Hemostasis, Hemotherapy.....	491
The Colorless Blood Corpuscles	83
The Corpuscular Elements	44
The Plasma and Blood Corpuscles	3
The Plasmic Currents	5, 42
Thermotaxis and Circulation in Shaft of Bones	331
Thermotaxis or Thermotherapy	448
Vascular Mobility	165
Vascular Stasis	165, 166, 212
Cancer of the Larynx.....	366
Mann, Dr. E. C., New York city. Inebriety and Morphine Habit	1
Pathology and Treatment of Nervous Diseases	245
New and Important Cholera Mixture	333
Monell, Dr. S. H., Brooklyn, N. Y. Bicycle in Medical Practice	407
Patterson, Dr. R. L., Coyville, Kan. Chlorine-Quinine in Typhoid	41
Pouillet, Dr., France. L'Onanisme Chez la Femme, translated by Dr. F. E. Chandler, Boston.....	7, 46, 86, 127, 167, 214, 250, 291
Tanner, Dr. J. A., Boston, Mass. Poisonous Effects of Carbonic Ox- ide in Illuminating Gas.....	208
Tuttle, Dr. A. H., Cambridge, Mass. Fibroid Tumors of Uterus	405

Index to Volume XXXI.

	Page
Abdominal Cavity, Foreign Bodies	
Left in the, after Laparotomies.	431
Section, Indications and	
Modes of Drainage After.	358
Abscess, Perineal.	196
Actinomycosis, Contribution to the	
Treatment of.	152
Treatment of, with Hypoder-	
mic Injections of Potas-	
sium Iodide.	70
Adenoid Vegetations, Contribution	
to the Study of.	235
Addison's Disease, Treated by Feed-	
ing with Supra-Renal Capsules of	
the sheep.	191
Address, An, by L. Webster Fox.	450
Albumen in Urine, A New Method	
of Estimating.	103
Albuminuria, Diet for.	159
Alcohol in Fevers.	188
Alcoholism, Chronic, in a six-year-	
old Child.	279
Amenorrhea as an Auto-Intoxicant	
(Ed.).	298
Electricity in.	62
American Medical Association, 47th	
Annual Meeting (Ed.).	414
American Press	507
Anemia and Blood Measurements.	285
Anesthesia, An Aid to General.	393
Ankylosis, Fibrous, Treatment of.	262
Announcement.	175
Another Change in Location (Ed.).	55
Another Ray Discovery of Import-	
tance to the Medical Profession.	297
Antisepsis, Obstetrical.	274
Antitoxin as a Culture Medium for	
the Diphtheria Bacillus.	95
Wasn't Injected with.	105
Apology, An.	219
Apolysin.	264
Appendages, Suppurative Diseases	
of the.	318
Appendicitis, Operations for the	
Sub-Acute.	75
Symptoms and Treatment of	
various types of.	32
Aristol, Therapeutics of.	295
Arteries, Suturing Wounded.	272
Auditory Canal, Extraction of	
Plugs of Cerumen From.	349
Aunt Martha, A Ballad.	513
Baby, Care of the.	199
Bacteriological Examination of the	
Female Genital secretions in Preg-	
nancy and the Puerperum.	389
Bath, The Parisian.	200
Bicycle in Medical Practice.	407

	Page
Bile-stones, Vomiting of.	152
Biliary Passages, Rupture of, con-	
secutive to contusion of abdomen.	153
Page.	
Bismuth, Poisoning by Subnitrate	
of, Used as a dressing powder.	231
Biting the nails.	266
Bladder, Contracted, Treated by	
graduated fluid dilatation.	112
Foreign body in the.	196
In Females, Results from ex-	
aminations of air distended.	317
Spontaneous cure of a malig-	
nant tumor of.	473
Blenorrhagia, Trophic Troubles in.	187
Blood, Changes in composition in	
some diseases.	189
On the causes of lessening	
the leucocytes in, After in-	
jection of different sub-	
stances.	150
Practical study of, and cir-	
culation.	5, 42, 83, 124, 165,
212, 248, 290, 331, 448, 491	
Red corpuscle of, In legal	
Medicine.	27
Book Reviews:—	
A Study in Hypnotism.	500
Chemically pure hypophos-	
phites.	380
Coca and its therapeutic ap-	
plication.	343
Color vision and color blind-	
ness.	181
Consumption, its nature,	
causes and prevention.	300
Diagnosis and treatment of	
diseases of rectum, etc.	300
Don'ts for consumptives.	380
Hand-book of Louisiana.	260
Mitteilaugen aus den grenz-	
gebieten der medizin und	
chirurgie.	260
Syphilis in the middle ages	
and in modern times.	228
Syrup of hydriodic acid.	380
The functional examination of	
the eye.	181
The history of oratory.	142
The international medical an-	
nual for 1896.	344
The medical muse.	181
The newer remedies.	425
The principles and practice	
of bandaging.	23
The principles of surgery.	143
Twentieth century practice,	
vol. 5th.	379

	Page		Page
Twentieth century practice, vol. 6th	425	Cycling and the Saddle	428
Vita sexualis	379	Cystic Affections, Internal applica- tion of Cantharidin in	270
Boric Acid, Two cases of poison- ing by	312	Cystitis	191
Breasts, Care of the	319	Cystocele in the Course of Her- niotomies	432
Page.		Dainties, Receipts for	324
Breech Presentation, a Sign of	358	Dampness in Dwellings, How Rec- ognized	110
Brief Notes on new and rare reme- dies..36, 76, 116, 156, 197, 241, 273, 320, 360, 398, 438, 481, 514		Page.	
Bright's Disease, Chronic, Diet in	259	Delirium, Infectious Origin of Acute	148
Fuchsin in	266	Delivery Through a Central Rupture- of the perineum	317
Broom, About the	324	Dermatology, Some of the Uses of Electrolysis in	377
Buboes, Treatment of, by Injection of Vaseline and Iodoform	112	Digestion, Diet and	402
Burial of Living Persons	306	Diphtheria, Antioxin Treatment of	454
Burns, Ichthylol in the Treatment of	111	Identity of, In man and Lower Animals	304
Permanganate of Potassium for	109	Mortality from, Since the In- troduction of the Serum	109
Bygone Days	404	Myrrh, In the Treatment of	346
Calomel, Hypodermic Injections of. 73		Of Eye, Cured by Whey	385
Cancer, Contagion of, Among physi- cians	355	Persistence of Bacillus in the Nasal Mucus	147
In Vaters Ampulla	511	Pilocarpine in	105
Of the Larynx	366	Some Doubtful Points in the Therapy of	349
Sero-therapy in	112	Disgrace of My Own Side	501
Treatment of	143	Doctor, the, and His Patient	270
Treatment of Inoperable, with Methyl Blue	267	Dressing Powder, A New	70
Treatment of, Stomach	237	Drinks for the Sick	443
Carbolic Acid Poisoning, Changes in the Respiratory Organs in	63	Dyspeptics, Food for	323
Carbuncle, Treatment of	237	Ear, A Plantin, Sprouting in	510
Cardiac Affections, Diuretics in	191	Eczema, Treatment of With Stream- ing Hot Steam	386
Weakness, What Causes in infectious Diseases	71	Electrical Exposition and Recent Electro-therapeutic Practice	421
Carotid, Ligature of External	509	Electricity and the Processes of Life	345
Catarrh, Church	185	Forcing Plants by	344
Celery, as a Cure for Rheumatism	229	Some of the Simpler Uses of, In Treating Pelvic Viscera. 17	
Cellulitis, Occurring as Usual Compli- cations to Gynecological Diseases	325	Empyema, Notes of Cases of	195
Chancre of the Chin	386	The Treatment of	189
Chancroid, the Bacillus of	381	The Treatment of by Substi- tuting Innocuous Liquid for	308
The Treatment of	430	Trephining in	266
Children, an Intestinal Astringent for	104	Endocarditis	185
Food for Young	79	Endometritis, Treatment of	269
Moeller's Disease in	186	Enterprising Medical Journalism	55
Playroom for	39	Enuresis Nocturna	68
School, Defective Hearing in	279	Epilepsy, Treatment of	72
Weight of New-born	69	Epispadias, A Case of	187
Chlorosis	185, 231, 381	Epithelioma of Esophagus	151
As an Infectious Disease	507	Treatment of Buccal, By Chlorate of Potassium	355
Chilblains	112	Erection, Nervous	307
Chinosol, The Importance of, As an Antiseptic	385	Erysipelas, Serum Treatment of	28
Chloroform, Deaths From	374	Eucaïne	427, 504
Venesection in Poisoning by	394	Exudations and Simple Transuda- tions, Test for Distinguishing Be- tween Serous	196
Cholera Mixture, An Important and New	333	Eye, Black, A Remedy for	112
Cirrhosis of the Liver, Causes of	28	Fauvel, Dr. Charles, of Paris, Death of	72
Citrophen, An Explanation Concern- ing	145	Fallopian Tube, Abscess of	498
Cod Liver Oil, Aromatic	69	Fees, Medical Examiners'	238
Color Blindness	348	Femur, Shortening of, Causes and Significance	272
Comegys, Cornelius G., M. D., Obit- uary	175	Fibroid Tumors, Of Uterus, When and How to Operate	405
Concerning Eggs	243	Fish, Pickled	200
Congenital Immunity	313	Fistulae, Treatment of Stercora- ceous	74
Constipation, Chronic, Treatment of. 28		Treatment of Vesico Vaginal, By Intra Vesical Suture	472
Diet for Habitual	159	Flexions, Radical Relief of Uterine	390
Contraction of Flexors of Hand Cured by Shortening Bones of Forearm	510		
Convalescence, Tonics in	56		
Coriitis Rheumatica	149		
Cough Cure (?)	402		

	Page
Floors and Floor Coverings, Sanitary Management of	363
Foods	244
Football Casualties	357
Formalin Catgut	149
Frost Bitten Hands, for	160
Fruit as a Medicine	110
Gall Bladder, Rupture of	381
Gangrene of the Extremities in Young People	149
Genitals, Extensive Operations on the	279
Prolapse of, Treatment of	355
Glaucoma, Chronic	106
Glutol-Schleich	383
Gonorrhea, Abscess of the Hand as a Complication of	433
Bacteriuria as a Complication of	430
Citric Acid in	508
Infantile	231
Treated by Alkaline Injections	71
Treatment of Acute, in Females	188
Guiacol Carbonate as a Substitute for Creosote in Phthisis	146
Gynecology, Massage in	271
Hair, Care of	284
Care of the Baby's	283
Hallux Valgus, Treatment of	470
Headache, Massage for	364
Hematuria of Tubercular Origin in the Kidney	236
Hemoptysis, the Treatment of (Ed.)	14
Hemorrhage, Atropine in Uterine	192
Excessive	432
Post Partum	474
Hemorrhoids, Treatment of	31
Hernia, Radical Cure of Large Inguinal	73
Descent of Bladder in Crural	512
Treatment of Gangrenous	353
Umbilical and Eventration, New Method of Curing	187
Umbilico-Vesical	111
Herpes Zoster	192, 431
Hiccough, How to Stop	144
Obstinate, Cured by Rhythmic Traction on the Tongue	426
Hints, Breakfast	284
Culinary	40, 80
For Household	159
For Housewives	243
Hip Joint, Congenital Dislocation, Treatment of	152
Hot Water in Surgery	234
Housecleaning Tactics	403
How to Cure a Bad Habit	420
Hydatidiform Mole	410
Hydrastin and Hydrastinin	69
Hydriodic Acid, Syrup of	380
Hydrocele of the Labium-Majus	240
Treatment of, Of the Tunica Vaginalis by Irritating Injections and Drainage	354
Hydrogen Dioxide, Biological Action of	267
Hyperemia, Cerebral from Long Sleep	496
Hypnotic Suggestion in Pediatrics	68
Hypophosphites, Chemically Pure	380
Hysterectomy, Abdominal and Vaginal (Ed)	15
For Puerperal Septicemia	318
Hysteria in the Male	187

	Page
Hysteria Simulation	351
Hysteropexy for Displaced Uterus	258
Pulmonary Infraction, After	319
Ichthyol Salts of Alkaloids	104
Illumination and Other Gases, Poisonous Effects of Carbonic Oxide in	208
Gas as a Poisonous Agent	201
Immunity, Natural	135
Induction-Coil Currents Practical Method of Measuring and Registering the True Therapeutic dose of	137, 176, 261
Induction of Labor, Should Intra-Uterine Injections of Glycerine be Used in	154
Inebriety, The Relation between the Morphine Habit, etc.	1
Influenza, Treatment of the Nervous Form of	161
Insomnia in Children (Ed.)	298
Instruments, Cleaning of Rusty	196
Rapid and Sure Disinfection of	233
Intestine, Circular Suture of	74
Resection of Three Metres of, In Child 8 Years of Age	260
Intussusception in an Infant Reduced by Inflation With Warm Water	471
Iodine in Dermatology	230
Iodoform, The Disinfective Action of	150
Iodoformine	191
Iritomy, A New	427
Jaundice	470
Joints, On Anchylosed (Ed.)	133
Journal of the A. M. A.	336
Jugular Vein, Ligature of the Internal in Exterpation of Cervical Tumors	432
Keratitis With Hypopyon, A New Treatment of	64
Kidney, Lithium Bromide in Inflammation of	233
Nephrectomy for Tuberculous	353
The Action of Ether and Chloroform on	511
Kitasato's Work in Tokin, Professor	348
Kitchen, How Waste Occurs in the	160
Labor, Rapid Dilatation of os During	35
Walscher Position for	275
Lactation and Syphilis	275
Laparotomy, Ablation by, Of a human Endocymoid Monster	350
Laryngitis, Attacks of Stridulous Coinciding With the Appearance of Certain Teeth	279
Late Suppers	363
Lemonade, To Make Perfect	323
Lemon, For the Lung	323
Juice as a Hemostatic	71
Leprosy, Treatment of	382
Like Some Professional Fakes (Ed.)	105
Locomotor Ataxia	461, 464
Love's Anatomy	442
Luncheons, School	40
Luxation of the Hip, Double Congenital, Etc. Caesarian Section	66
Malpractice Suit	230
Manz's Glands in the Normal Human Conjunctiva	148
Mastitis, Chronic, Of Traumatic Origin in Man	70
Meals, Children's	402
Morning	364
Medical Journalism, The Duty Line in	365

	Page
Profession and the Patent Medicine Trade. (Ed.).....	218
Meniere's Disease	497
Meningitis, Tuberculous, Recovery	469
Spinal	465
Traumatic, Cerebral	496
Menopause, Physiological and Surgical Compared	391
Menorrhagia in Old Women	473
Menses, Suppression of	498
Menstruation, Cleanliness During	307
Precocious	386
Warm and Cold Baths During	149
Mercury, Oxycyanide of, As an Antiseptic	69
Middle-Ear, Inflammation of in Infants	63
Vaseline in the Treatment of affections of	26
Page.	
Mid-Wifery, Digital Exploration in	115, 239
Milk, Chemical Changes in Caused by Boiling	120
Evaporated	159
Miscarriage, The Management of	239
Monuments to Pasteur	72
More Science (Ed.)	298
Mother, A Poem	493
Mumps, The contagion of	64
Murphy's Button, A Substitute For	74
My Treasure	284
Neoplasms, Malignant	30
Nephritis	250
Action of Bromolithium in Acute and Chronic Parenchymatous	150
Nervous Diseases, Pathology and Treatment of	245
Neuralgia, For the	192
Pelvic	319
New-born, Bacteria of the Vagina of the	274
Nose, Congenital Imperforation of the	431
Oath, the Hippocratic	45
Obligations of a Physician to his Brother Practitioner, etc., in the Event of Sickness. (Ed.)	217
Obstetrics, Venesection in	154
Olive Oil, Sterilized, as a Local Anesthetic	312
Onanisme Chez La Femme, 7, 46, 86, 127, 167, 214, 250, 291	
Operate Between the Attacks, A Criticism	144
Ophthalmic Troubles in Bicyclists	304
Orbit, Pseudo-Neoplastic Tumors of the	113
Osteoplastic Operation of the Knee-Joint, Attempt to Modify the	30
Osteomyelitis of Long Bones, Treatment of Acute	190
Otitis Interna, Internal Treatment of	265
Media, Hydrozone in Purulent	346
Our New Departure	39
Our Student Days	299
Ovarian Cyst, Dermoid, of Unusual Size	115
Ovariectomy in a Child of Six	114
Ovary and Tubes Undescended With Sacto-Salpinx Purulenta	121
Extract of	506

	Page
Ozena, Treatment of by Interstitial Electrolysis	180
Paris Natality and Mortality in	269
Parturition, New and Speedy Method of Dilating Rigid Os in	34
Patellar Reflex	313
Pelvis, The Female in Primitive Races	275
Perineum, Care of, During Delivery	391
Peritonitis, Results Obtained by Operating in Tuberculous	271
Pessary, Lemon as a	474
Pharmacy, A Dangerous Tendency in	429
Phenacetin Bayer, The Various Uses of	253
Phenetidin Derivatives, Practical Usefulness of the	26
Photographic Diagnosis, By Radiant Energy of Induction Coil Current Operating Through High Vacuum Tube	98
Page.	
Phthisis, a Case Apparently Cured. On the Transmission of, From Mother to Child	312
Pulmonary, Experiments on the Contagiousness of	469
Physique, Improvement of the, Before Birth	34
Pilocarpin in Influenzal Pneumonia	105
Placenta Previa	386
Potassium Chloride in Tumors of Mouth	506
Pneumonia, Revulsive Treatment of	505
Pregnancy and Cholera	114
And Smallpox	193
And Exophthalmic Goitre	388
Edema and Prolapse of Cervix in	115
Extra-Uterine	368
In Girlhood	434
Intervention in, Complicated with Albuminuria	193
Sepsis During	35
Strychnine in	388
With apparently Imperforate Hymen	279
Prescriptions:	
Acne Rosacea	440
Albumen, New Test for	441
Alcoholism, Chronic	78
Alopecia	78, 241
Anesthetic, Parsons' Local	78
Topical	322
Aphonia, Hysterical	441
Asthma	158, 322
Auricle, Eczema of	38
Biliousness	158
Black Eye	480
Blepharitis	158
Bronchitis	480
Bruises	282
Burns, Treatment of	38
Chordee	158
Cystitis, Acute	78
Delirium Tremens	480
Diabetes, Thirst in	440
Diarrhea, Chronic	440
Eczema, Chronic	440
With Desquamation	281
With Pruritus	322
Emphysema	38
Enema, Nutritive	241
Enteritis, Chronic Catarrhal	362
Eruptions, Due to Intestinal Decomposition	38
Gastritis, Flatulent	38

	Page		Page
Prescriptions:		Scrofula, Treatment of, With Mer-	
Goitre.....	78	cury.....	110
Gonorrhea.....	158	Scurvy, Microbe of.....	63
Gout.....	441	Seminal Stains.....	268
Headache, Periodical.....	440	Settlers' Convention (Ed.).....	336
Hemorrhoids, Tar for.....	241	Sex, Determination of.....	274
Hepatic Stimulant.....	38	Sexual Derangements in the Male.	
Herpes Zoster.....	78	How to Diagnose.....	383
Impotence, Functional.....	362	Shoulder Straps, The Wearing of..	39
Infant Feeding, Artificial.....	440	Signs of Clearing in the Atmos-	
Insomnia.....	322	phere (Ed.).....	53
Iodism, Avoidance of.....	241	Skin Grafts, Transplantation of	
Leukoplakia.....	441	Large.....	113
Liver, Cirrhosis of.....	281	Sleep for Children.....	230
Lupus.....	441	Some Optimistic Philosophy.....	119
Malarial Cachexia.....	481	Spina Bifida, Occurring in the Cer-	
Measles, Cutaneous Irritation		vicul Region, A Case of.....	235
of.....	362	Spinal Sclerosis Disseminated.....	499
Migraine.....	440	Sprains and Fractures, Constitution-	
Nipples, Cracked.....	158	al Element in, (Ed.).....	257
Pleurisy.....	158	Steam as a Hemostatic.....	29
Pruritus, Ciliary.....	188	Step in the Right Direction, A....	135
From Jaundice.....	241	Still at it, (Ed.).....	15
Of Scrotum.....	322	Stomatitis from Mercury.....	191
Rheumatism.....	158	Strictures, Electrolysis for the Sur-	
Rhinitis, Atrophic.....	480	gical Treatment of.....	75
Scrofulous.....	158, 281	Sugar, Usefulness of, (Ed.).....	54
Syphilis, Hereditary.....	480	Page.	
Of Larynx.....	480	Superior Maxillary, Tumors of the.	237
Tonic.....	322	Supra-Renal in Intravital Soften-	
Tooth Powder.....	118	ing, And Formation of Cavities in	
Tricophytosis.....	38	the.....	232
Tuberculosis, Pulmon-		Surgical Diseases of Children.....	234
ary.....	78, 158	Sugar Disorganizing Force of Blood	
Urine, Continence of.....	38, 158	and Tissue.....	507
Warts.....	440, 481	Sweeping and Dusting.....	79
Whooping Cough.....	198, 281	Syphilis and Malaria.....	430
Worms, Lumbricoides.....	78	Syphilis and Malaria.....	430
Tape.....	78	Prostitution.....	280
Prevention Better Than Cure.....	443	Syringomyelia in a Child, A Case	
Process, A Thinning Down.....	120	of.....	107
Professional Secrets.....	335	Systemic Conservation of Trau-	
Prostate, Hypertrophied.....	29	matised Members.....	314
Puberty in Infantile Hemiplegia.....	280	Table, The Operating.....	358
Puerperal Fever, A Cause of.....	174, 387	Tannigen.....	147
Infection and the Vagina.....	434	Tape Worm, Treatment.....	64
Pulsatory Tinnitus.....	426	Tea Gowns.....	40
Puncture, Lumbar.....	32	Teeth, After Complete Traumatic	
Pyelonephritis.....	354	Dislocation, Reimplantation of....	393
Pyloric Stenosis, New Method of		Tenicide, A New.....	69
Treatment for.....	113	Tenotomies in Heterophoria, Varying	
Queen, A Physician.....	284	Effects of.....	106
Radial Paralysis Consecutive to a		Tetanus.....	233, 463
Fracture of the Humerus.....	353	Amputation in.....	238
Reaction, Salutory.....	459	Convulsions in, Following	
Relationship Between the Medical		Bite of Tongue.....	71
Journal, the Advertiser and the		Throat, Foreign Bodies in.....	357
General Practitioner (Ed.).....	93	Tonsillitis, Infective Endocraditis in.	426
Relics of Evolution.....	306	Ulcerative Chancreform.....	381, 384
Renal Stone, Glycerine in.....	307	Torticollis, Treatment of.....	152
Reproduction and the Law of the		Trephining, Prehistoric.....	393
Sexes.....	151	Trional, Hypnotic Value of in Chil-	
Respiration, Embarrassed.....	81	dren.....	381
Rest Before Dining.....	364	Tropometre, The.....	105
Retort Pertinent.....	120	Trouble in Strausburg University....	269
Rheumatic Rings.....	338	Troubles in the Community.....	233
Rheumatism, Treatment of Gonor-		Tuberculosis, Action of Parachloro-	
rheal.....	112	phenol in.....	109
Roentgen's Discovery, Professor.....	135	And Poverty.....	232
Theory of Professor.....	173	Injection of Iodoform in the	
Salt, Uses for.....	323	Treatment of Surgical.....	152
Salutatory, (Ed.).....	13	In Man and Animals.....	347
Sanatoria for Consumptives, A Dan-		Of Human Placenta in Re-	
ger to the Neighborhood, Are.....	103	lation to Congenital.....	194
Scarlet Fever.....	483	Sero-Therapy in.....	65
Sciatica, Treatment of.....	467	Surgical Aspect of.....	31
Science in the Kitchen.....	442		

	Page		Page
Tumors, Value of the Romelaev		Vaginal Douches in Gynecological	
Laws in the Diagnosis of Abdominal Malignant	189	Practice	268
Tu Ne Ce Des Malis (Ed.)	494	Hysterectomy, Extract From	
Twelfth International Medical Congress, Letters from Secretary	352	Discussion on for Pyosalpinx and for Uterine Myomata	195
Typhoid Fever, Antiseptic Treatment of, With Chlorine-Quinine Solution	41	Hysterectomy Statistics of for Uterine Carcinoma	239
Apyrexial	469	Invision and Drainage	388
Desquamation Consecutive to	312	Variations in the Pulse and Cardiac Volumn With Corresponding Changes in the Size of the Liver and Spleen	427
Report on Diminution of, In St. Onen-sur-Seine, France	192	Page,	
Study of Periostitis in	508	Vascular Mobility and Stasis, Interruption and Arrest of the Sanguineous Wave Physiological and Pathological	165, 212, 248, 290, 331, 448, 491.
The Guaiacol Carbonate Treatment of	282	Veins, Suture of After Accidental Lacerations	75
Ulcer of the Stomach, Hot Water and	103	Venereal, A Chapter on, And Skin Diseases	191
Umbilical Cord, A New Postural Method of Treating Prolapsus of	390	Vermineous Preforations of the Intestine	238
Hernia, Abdominal Section in New-born Infants for (Ed.)	413	Vitiligo	510
Urethra, Prolapse of in Female Children (Ed.)	413	Warm Night Garments	79
Urinary Passages, Surgery of the	113	Warts, Treatment of	316
Urotropin	184	What is Said of the New Plan	340
Useful Paragraphs	282	What has Electro-Therapy to Gain From the Electrical Mathematization	220
Page,		When I Was Sick	364
Uterus in Ecopic Gestation	114	Whooping Cough, Bromoform in (Ed.)	412
Spontaneous Cure of a Rupture	385	Treatment of	29
Suction of the Nipple in the Treatment of Fibrous Tumors of the	155	Women and the Wheel	484
Surgical Treatment of Retro-deviations of the	273	Of Interest to	483
Treatment of Subinvolution of the	193	Wounds, A New Form of Antiseptic Treatment of	355
Vacancies in the Medical Corps of the U. S. Army	502	Wry-Neck, The Operative Treatment of	394
Vaccination Virus Vanquisher	65	Xeroform	467
Vagina, Traumatic Structure of the	388		



